

**FUTURE TIME PERSPECTIVE: EXAMINATION OF MULTIPLE
CONCEPTUALIZATIONS AND WORK-RELATED CORRELATES**

A Thesis
Presented to
The Academic Faculty

By

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In Partial Fulfillment
Of the Requirements for the Degree
Master of Science in Psychology

Georgia Institute of Technology

May 2013

Future Time Perspective: Examination of Multiple Conceptualizations and Work-related Correlates

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Date Approved: January 17, 2013

ACKNOWLEDGEMENTS

I would like to thank my advisor, Dr. Ruth Kanfer, for all her work and support during the completion of this thesis. Your efforts to provide prompt and helpful feedback at all phases of the project are greatly appreciated. The training I have received in the lab and in relation to this project has helped me to be a better researcher and writer. I would also like to acknowledge the members of my committee, Drs. Ruth Kanfer, Phillip Ackerman, and Rustin Meyer, for your useful suggestions and guidance. Thank you for your detailed feedback and service on my thesis committee. Your advice and guidance contributed to the ultimate success of the thesis.

I would also like to thank my fellow graduate students in the Knowledge and Skill Lab for providing me with advice and support during the completion of this project. I wanted to thank Charles Calderwood, Sunni Newton, Erin Marie Conklin, Sam Posnock, Matt Kerry, Sarah Farmer, and Victor Ellingston for being there to listen to ideas and offer suggestions during the completion of this project. Your advice and support is greatly appreciated.

Finally, I would like to thank my family for their continued support. To my mom, Michelle Betts, you have always been there to encourage and support me, for which I am grateful. To my girlfriend, Alex Thacker, thank you for the unconditional support that you have given me. Your encouragement and advice over the years have been invaluable.

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SUMMARY

Full-time employed and unemployed adults' life level of analysis future time perspective (FTP) and work level of analysis occupational future time perspective (OFTP) were evaluated to measure differences between FTP conceptualizations and the validity of OFTP in the work domain. A final sample of 304 full-time employed and 98 unemployed job seeking adults completed a self-report online battery including demographic, work history, FTP, work-related attitudes, and personality measures. Results found the three FTP conceptualizations [Carstensen and Lang Future Time Perspective Scale (CL-FTP); Zimbardo and Boyd Future Factor (ZBF); and Consideration for Future Consequences Scale (CFC)] were differentially related to achievement striving and planfulness. The CL-FTP scale was weakly, significantly and not significantly related to the CFC and ZBF scales, respectively. In addition, results indicated OFTP had a significantly stronger relationship with chronological age than CL-FTP and OFTP added incremental validity beyond general CL-FTP in predicting work-related attitudes. Lastly, mean differences in CL-FTP and OFTP scores by employment status were obtained, indicating that OFTP may be susceptible to change via work characteristics. Further exploratory analyses and theoretical and practical implications of the current findings are discussed.

CHAPTER 1

INTRODUCTION

In the broadest terms, future time perspective (FTP) refers to individual differences in the tendency to think in terms of the future (Kastenbaum, 1961; Shell & Husman, 2001). Future time perspective is a non-ability individual differences construct that has garnered increasing interest over the past decade in both basic and applied fields of psychology, including human decision-making (e.g., Ferrari, Nota, & Soresi, 2010), personality and social psychology (e.g., Dunkel & Weber, 2010), and most recently organizational psychology (e.g., Zacher & Frese, 2009). However, researchers have conceptualized and assessed the construct in different ways over the years, making it difficult to integrate findings. A major objective of this project was to empirically examine different operationalizations of FTP.

Despite operational differences in the measurement of cross-domain or general FTP, there has also been increasing interest in the role of work-specific or occupational FTP (OFTP). Zacher and Frese (2009) and Zacher, Heusner, Schmitz, Zwierzanska, and Frese (2010), for example, have examined the relationship between employee age, occupational measures of FTP, and work characteristics. Findings by Zacher and colleagues (2009, 2010) showed the positive relationship of OFTP with work performance ($r = .20$), the moderating effects of job complexity, and the significant, negative relationship with age ($r = -.60 - -.82$). However, it is difficult to interpret the meaning of these findings because the theory driving OFTP is assumed to be equivalent to cross-domain FTP, but the relationship is currently unknown between the two measures. A second objective of this project was to investigate whether occupation-specific FTP measures reflect a domain-specific measure of future time perspective on a general, life level, or whether such measures capture

conceptions of work future that are determined on a work-domain level, such as employment status and job characteristics. For example, age-norms related to retirement may create a different future endpoint for evaluating future time perspective with respect to workforce participation (i.e., work-domain level), but have little or no effect on cross-domain trait measures of future time perspective framed in terms of the life course (i.e., general level). In addition, the third objective will further investigate the relationship between OFTP and general FTP in extending Zacher and colleagues (2009, 2010) by addressing OFTP's domain specificity through OFTP's relationships with work attitudes and OFTP's incremental validity beyond general FTP in predicting work attitudes. The differential relationships of OFTP and general FTP with work attitudes will provide additional evidence to uncover the meaning and potential value of OFTP.

Theoretical Perspectives to FTP

Early conceptualizations of FTP by Trommsdorff (1983) and Kastenbaum (1961) posited a four-dimensional construct comprised of: (1) extension, (2) density, (3) coherence, and (4) directionality. Extension refers to the length of time span that is conceptualized or how far into the future an individual envisions (Trommsdorff, 1983). If an individual has a long extension he/she has an expansive future time perspective and perceives the future as limitless. Density refers to the number of events the individual is able to see in his/her personal future (Kastenbaum, 1961). An individual who sees many events in his/her personal future is described as high in future density. Coherence is the degree of organization of perceived events in the future time span (Wallace & Rabin, 1960). Coherence measures are designed to assess how well an individual can structure and construct his/her future. Directionality refers to the perceived speed of movement from the present to the future or how fast an

individual thinks time is moving from the present to the future (Rakowski, 1979).

Each dimension was conceptualized as ranging from “limited” to “expansive.”

FTP researchers have moved away from the constrained view of FTP in terms of "limited" and "expansive" and proposed theoretical conceptualizations of FTP that do not incorporate the four dimensions. Currently, three perspectives and associated measures dominate the FTP literature: FTP based on the Socioemotional Selectivity Theory (Cate & John 2007), Consideration of Future Consequences (Strathman, Gleicher, Boninger, & Edwards, 1994), and Five Factors of Time Perspective (Zimbardo & Boyd, 1999).

Cate and John (2007) proposed a two-dimensional model of future time perspective, based on the Socioemotional Selectivity Theory (SST). Socioemotional Selectivity Theory posits that an individual's investment of personal resources is a product of the perception he/she has of anticipated ends (e.g., life, work, etc.; Lang & Carstensen, 1994). Based on this conceptualization, one might assume an older individual, being further along in the life course, will perceive his/her anticipated end to be close, whereas a young individual will perceive his/her anticipated end to be far. This assumption would suggest an older individual invests less personal resources than a young individual in his/her work, family, friends, etc.. Building on this interpretation of SST, Cate and John (2007) proposed that the amount of time people perceive they have left ahead of them is linked to their social motivational system; and this perception of time left ahead, changes with age.

Accordingly, Cate and John (2007) proposed a model of FTP that represents perceptions of the future in terms of a cognitive structure, rather than individual differences in a stable, dispositional trait. Cate and John (2007) identified two factors of FTP: (1) focus on opportunities, and (2) focus on limitations. They defined focus

on opportunities as the extent to which an individual's attention is fixed on remaining possibilities. In contrast, focus on limitations was defined as the extent to which an individual's attention is fixed on remaining limitations. Linking back to SST, individuals who perceive many future opportunities (i.e., high on focus on opportunities) will be more motivated, invest more personal resources, and perceive a distant end. In contrast, individuals who perceive many future limitations (i.e., high on focus on limitations) will be less motivated, invest less personal resources, and perceive a near end. Based on this interpretation of SST and operationalization of FTP, Cate and John (2007) proposed that people scoring high on "focus on opportunities" are posited to be high on FTP, whereas people scoring high on "focus on limitations" are posited to be low on FTP. Cate and John (2007) used the 10-item Carstensen and Lang Future Time Perspective Scale (CL-FTP; Carstensen & Lang, 1996) to measure focus on opportunities and focus on limitations, which combines the 7-item focus on opportunities and 3-item reverse scored focus on limitations factors in additive fashion to form an individual's total FTP score.

A second perspective on FTP derives from Strathman et al.'s (1994) Consideration of Future Consequences (CFC). CFC refers to the extent to which individuals consider the potential distant outcomes of their current behaviors and the extent to which they are influenced by these potential outcomes (Strathman et al., 1994). In this formulation, FTP reflects the intrapersonal struggle between the immediate and future outcomes associated with behavior. CFC, or individual differences in the tendency to favor immediate versus future outcomes, is posited to be a relatively stable characteristic. Individuals scoring low in CFC focus more on their immediate future and act to satisfy these immediate needs. In contrast, people who score high in CFC consider the future consequences of their behavior and utilize

their future goals as guides for their current behavior (Strathman et al., 1994). CFC is measured using the 12-item Consideration of Future Consequences Scale created by Strathman et al. (1994). The scale utilizes a Likert-type rating scale to measure participants' agreement with items assessing delay of gratification, planning, and goal setting.

Zimbardo and Boyd (1999) provided a third conceptualization of individual differences in time perspective in terms of a five factor model of time that incorporates the past, present, and future. The five factors comprising the model are past-positive, past-negative, present-hedonistic, present-fatalistic, and future. Individuals are measured independently on each factor, therefore receiving five time perspective scores. FTP refers only to individual differences in the future factor. The future factor (ZBF) is made up of 13 items of the 56-item Time Perspective Inventory created by Zimbardo and Boyd (1999). The Zimbardo and Boyd (1999) exploratory factor analysis yielded these items because they converged on similar content, such as planning, goal setting, and procrastination. Zimbardo and Boyd (1999) argued that individuals who score high on the future factor tend to be planful and achievement motivated. In contrast, individuals low on the future factor are characterized as impulsive and unfocused (Zimbardo & Boyd, 1999).

As mentioned, Strathman et al. (1994) defined CFC as the intrapersonal struggle between present outcomes or future rewards and Zimbardo and Boyd (1999) conceptualized ZBF as the balance between using present time to plan for the future and "living in the moment." Those operational definitions of CFC and ZBF exhibit overlap, in that both invoke the struggle or balance in focus directed toward the present and the future. Based on these theoretical similarities, item content of the CFC and ZBF measures is similar. For example, both the CFC and the ZBF measures

contain similar delayed gratification items, such as "meeting tomorrow's deadlines and doing other necessary work comes before tonight's play" (Zimbardo & Boyd, 1999) and "I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes" (Strathman et al., 1994). However, the CFC only addresses the need to manage the present and future, whereas the ZBF also incorporates additional content, such as conscientiousness, punctuality, and dependability. For example, an additional sample ZBF item is "I meet my obligations to friends and authorities on time," which addresses punctuality and dependability.

In contrast to ZBF and CFC, CL-FTP is driven by the Socioemotional Selectivity theory. SST states that an individual's present behavior is shaped by his/her perception of time left. That is, CL-FTP requires individuals to account for their present chronological age and to estimate the limitations that their current age imposes on their future time left. According to SST, individual differences in CL-FTP reflect the individuals' belief about their futures, either long or short and filled with limitations or opportunities. The CFC and ZBF measures do not invoke chronological age or an individual's lifespan, but address behavioral tendencies related to conscientiousness rather than his/her belief toward the future. In addition, CL-FTP does not address the balance between present and future rewards and the CL-FTP measure's item content does not address planning, achievement, or dependability. A sample CL-FTP item is "most of my life lies ahead of me" (Carstensen & Lang, 1996).

The first question addressed in this study concerns the correlational relations among these three FTP measures. Correlation coefficient strength thresholds are defined as follows for past findings and present hypothesized relationships: weak (.10 - .30), moderate (.31 - .50), and strong (.51 - 1.00). Researchers have assessed the

relationship between the ZBF (1999) and the CFC measures (1994), and found a consistent, moderate to strong relationship between the two FTP measures ranging from $r = .44$ to $r = .52$ (Crockett, Weinman, Hankins, & Marteau, 2009; Keough, Zimbardo, & Boyd, 1999). The majority of these findings are based on undergraduate populations (Daugherty & Brase, 2010; Keough et al., 1999), but Adams and Nettle (2009) successfully replicated the relationship ($r = .45$) in a adult population. The relationships between CL-FTP and ZBF and CFC have not been assessed to date.

The present study replicates and extends the relationship between the ZBF and CFC measures into a full-time employed, adult population in order to demonstrate the consistency of the relationship across samples. I expect the relationship between the ZBF and CFC measures to be consistent with the Adams and Nettle (2009) findings because of the similar age and annual income of the adult samples and online administration of questionnaire batteries. Thus, I hypothesized the following:

H1a: The Zimbardo and Boyd Future Factor Scale (ZBF) will be significantly, and moderately positively correlated with the Consideration for Future Consequences Scale (CFC; anticipated $\rho = .60$).

However, I expect a weaker relationship between the CL-FTP measure and ZBF and CFC measures because of the differences in their respective theoretical conceptualizations and item content. As previously discussed, the Socioemotional Selectivity theory underlies the CL-FTP measure. SST posits that an individual's investment of personal resources is a product of the perception he/she has of anticipated ends (e.g., life, work, etc.). Thus, SST suggests individuals need to account for their present chronological age or distance to anticipated end and estimate their future investment of resources based on their perception of limitations and opportunities. Individual differences in CL-FTP reflect this estimation through

individuals' beliefs about their futures, either long or short and filled with limitations or opportunities. In contrast, the CFC measure addresses behavioral tendencies related to preferences for immediate or future rewards and the ZBF measure assesses behavioral tendencies associated with delay of gratification and conscientiousness. In addition, as demonstrated above, these conceptualization differences led to dissimilar item content between the FTP measures. In conjunction, the theoretical and item content differences should weaken the relationship between the CL-FTP measure and the ZBF and CFC measures.

The present study examines how these theoretical differences between FTP constructs influence the relationship among their respective measures. Evidence on the relationships among measures with different theoretical foundations is necessary in order to inform researchers who are interested in aggregating FTP findings across measures. Also, investigation of the interrelationships of FTP measures will assist in the interpretation and comparison of findings between studies and provide further clarity on the theoretical underpinnings of each FTP construct. Based on the theoretical and item content differences of these three life-level or general FTP measures discussed above, I hypothesized the following relationships between the CL-FTP, ZBF, and CFC measures of FTP:

H1b: The Carstensen and Lang Future Time Perspective Scale (CL-FTP) will be significantly, and weakly positively correlated with the ZBF Scale (anticipated $\rho = .30$).

H1c: The CL-FTP Scale will be significantly, and weakly positively correlated with the CFC Scale (anticipated $\rho = .30$).

Personality, Attitudes, and Behavioral correlates of FTP

In addition to evaluating the direct relationships between the three measures of FTP, this study also examines potential differences in the nomological network of relations between different FTP measures and select traits. The FTP literature documents significant relationships between the three conceptualizations of FTP and different personality traits and behavioral tendencies. For example, for the CL-FTP measure, such correlates include life satisfaction ($r = .32$; Allemand et al., 2012), internal locus of control ($r = .40$; Allen, Hilgeman, & Allen, 2011), and anxiety ($r = -.29$; Allen et al., 2011). The ZBF measure shows similar relations to those obtained with the CL-FTP measure, including significant relationships with life satisfaction ($r = .26$; Gao, 2011), internal locus of control ($r = .47$; Shipp, Edwards, & Lambert, 2009), and anxiety ($r = -.14$; Zimbardo & Boyd, 1999). Studies investigating personality correlates of the CFC measure have found significant relationships with internal locus of control ($r = .47$; Shipp, Edwards, & Lambert, 2009), and anxiety ($r = -.20$; Daugherty & Brase, 2010).

Although the pattern of relationships between the three measures of FTP and trait variables such as internal locus of control and anxiety are largely consistent, there is empirical evidence to suggest that CL-FTP may differ from ZBF and CFC in its relationship with conscientiousness. Previous FTP studies found that the CL-FTP measure's relationship with conscientiousness ranged from $r = .17$ - $.46$ (Cate & John, 2007; De Lange et al., 2011). However, Keough et al. (1999) found stronger relationships between conscientiousness and the ZBF measure ($r = .59$) and the CFC measure ($r = .55$). The correlational differences between CL-FTP and the CFC and ZBF can be explained by consideration of the underlying theories of the four constructs. Conscientiousness can be characterized as the ability to control, regulate, and direct impulses (Joireman, Kamdar, Daniels, & Duell, 2006). Individuals high in

conscientiousness have a tendency to formulate long-range goals, organize and plan goals, and work consistently to achieve these goals (Steel, 2007). Thus, part of conscientiousness is the tendency to achieve and plan ahead; the same characteristics used to describe CFC and ZBF. Findings by Keough et al. (1999) and Zimbardo and Boyd (1999) show a similar pattern of relations between conscientiousness and ZBF and CFC, but CL-FTP was not assessed. As suggested previously, the different relationship between CL-FTP and conscientiousness (compared to the ZBF and CFC relationships to conscientiousness) may be because CL-FTP places more emphasis on future life and less emphasis on current tendencies with respect to planning and goal setting than ZBF and CFC. Based on the strength of previous findings between the three FTP concepts and conscientiousness and these underlying theoretical differences between ZBF, CFC, and CL-FTP; I hypothesized the following:

H2a: The ZBF Scale will be significantly, and moderately positively correlated with the IPIP Achievement Striving Scale (anticipated $\rho = .60$).

H2b: The CFC Scale will be significantly, and moderately positively correlated with the IPIP Achievement Striving Scale (anticipated $\rho = .60$).

H2c: The CL-FTP Scale will be significantly, and weakly positively correlated with the IPIP Achievement Striving Scale (anticipated $\rho = .30$).

H3a: The ZBF Scale will be significantly, and moderately positively correlated with the IPIP Planfulness Scale (anticipated $\rho = .60$).

H3b: The CFC Scale will be significantly, and moderately positively correlated with the IPIP Planfulness Scale (anticipated $\rho = .60$).

H3c: The CL-FTP Scale will be significantly, and weakly positively correlated with the IPIP Planfulness Scale (anticipated $\rho = .30$).

FTP and Chronological Age

Researchers have long recognized the influence that an individual's place in the life course may play in future time perspective (Feifel, 1957; Fingerman & Perlmutter, 1995; Fredrickson & Carstensen, 1990; Steinberg et al., 2009). For example, Kessler and Staudinger (2009) suggested older adults with fewer years of remaining life expectancy will maintain a shorter perspective on the future than younger adults with more years of remaining life expectancy. Because the Cate and John (2007), Stratham et al. (1994), and Zimbardo and Boyd (1999) formulations define FTP in different ways with respect to remaining life expectancy, I expect that these theoretical differences will be reflected in the relationships of the different scales with chronological age.

For SST and Cate and John (2007), age-related differences in future orientation are expected as a consequence of how people perceive their remaining life. That includes not only the length, but the limitations and opportunities that individuals perceive in their future. In contrast, Stratham et al. (1994) characterized CFC by the ability to delay gratification. Once delay skills are fully developed after early adolescence (Raynor, 1970); age and life expectancy would be expected to exert limited influence. Similarly, Zimbardo and Boyd (1999) argued that ZBF captures a stable trait related to conscientious-like behavior that should be relatively insensitive to age.

Empirical evidence on the relationship of age to FTP varies as a function of measure and age of the sample studied. For example, several studies using young adults have found no significant relationship or a slightly positive relationship. De Bilde, Vansteenkiste, and Lens (2011) found a correlation of $r = .14$ between age and the ZBF measure among a sample of adolescents and young adults. Using undergraduate samples, Zhang and Howell (2011) and Fortunato and Furey (2010)

found similar significant, weak positive relationships of $r = .20$ and $r = .13$ between age and the ZBF measure, respectively. However, those positive relationships were not found in samples with larger age ranges. Utilizing a sample range of 25 to 63 years old, Ferrari and Diaz-Morales (2007), found a non-significant relationship of $r = .11$ and Preau et al. (2007) found a non-significant, negative relationship of $r = -.16$ with an age range from 24-68 years old. Based on these results, it can be argued that there is a consensus on the ZBF--age relationship, such that the relationship is consistently weak or negligible and influenced by sample characteristics.

Empirical evidence on the relationship between the CFC measure and age is similar to ZBF. Using a sample ranging in age from 18 to 65 years old, Adams and White (2009) found a significant, negative association of $r = -.17$ between the CFC measure and age. However, Orbell and Hagger (2006) found a non-significant relationship of $r = .03$ (age range: 35-70) and Appleby et al. (2005) found a significant, positive correlation of $r = .19$ (age range: 18-41). Similar to findings obtained with the ZBF, these studies show a consistent weak relationship between age and CFC, trending toward a slightly positive relationship when using a younger, and/or restricted sample.

Unlike CFC and ZBF, however, several empirical studies show a strong, negative association between the CL-FTP measure and age. Using participants who ranged in age from 20 to 80 years old (mean age = 47.5), Kessler and Staudinger (2009) found a strong, significant, negative relationship of $r = -.67$. Lang and Carstensen (2002) found a similar relationship of $r = -.70$ by using an age range from 20 to 90 years (mean age = 55.7). Other studies have also shown a negative, albeit less strong relationship between age and the CL-FTP measure. Treadway et al. (2010) found a moderately negative relationship of $r = -.35$ utilizing full-time

employed participants with a mean age of 30.6. Much like with CFC and ZBF, the relationship between age and the CL-FTP measure is slightly more positive when using a younger, and/or restricted sample. In summary, unlike CFC and ZBF, CL-FTP consistently displays a significant, negative relationship with age, but the strength of the relationship may be influenced by sample characteristics.

The present study examines the three measures of FTP and their relationships with chronological age using a common sample. By controlling for sample characteristics, the present study will allow direct comparisons between FTP—age relationships. The FTP—age relationship will further clarify the theoretical differences in FTP conceptualizations, specifically, that CL-FTP is driven by age dependent SST, CFC is driven by trait-like preferences regarding delayed gratification, and ZBF is driven by stable conscientious-related behavioral tendencies. Consistent with prior research, I expect that the CL-FTP measure will be significantly and negatively related to age because SST, CL-FTP's underlying theory, is reliant on an individual's place in the life course (Hicks, Trent, Davis, & King, 2012). Thus, I hypothesized the following:

H4: The CL-FTP Scale will be significantly, and strongly negatively correlated with chronological age (anticipated $\rho = -.55$).

Occupational Future Time Perspective

To date, nearly all studies investigating future time perspective in the work domain have been grounded in Socioemotional Selectivity Theory (SST), and have employed a measure of domain-specific future time perspective based on a modification of the CL-FTP measure; namely the OFTP measure (e.g., Zacher & Frese, 2009; Zacher et al., 2010). OFTP focuses an individual's future time perspective relative to his/her occupation, and uses that occupation as the anchor for

FTP judgments. OFTP is considered by organizational researchers to assess a domain or facet of general FTP, with the OFTP measure developed by modifying items on general measures of FTP to contain reference with respect to the individual's occupational context (Zacher & Frese, 2009). From Kastenbaum's (1961) perspective, OFTP would thus be defined as a general concern for future [occupational] events.

Zacher and Frese (2009) and Zacher et al. (2010) used frame of reference techniques (i.e., inserting "occupation" in each item) to assess individual differences in occupational future time perspective among working adults. Drawing from Cate and John (2007), Zacher and Frese (2009) focused on two dimensions of FTP: focus on opportunities (renamed remaining opportunities) and focus on limitations (renamed remaining time, and reverse scored so that high scores indicate an expansive future). To assess OFTP, Zacher and his colleagues modified the Carstensen and Lang (1996) Future Time Perspective Scale (i.e., CL-FTP) by inserting the word "occupation" into each item.

Using a working sample (mean age = 38.66, range = 19-60, working experience = 16.46 years), Zacher and Frese (2009) found that the OFTP limitations and opportunities subscales were significantly, negatively correlated with age ($r = -.82$ OFTP limitations scale; $r = -.60$ OFTP remaining opportunities scale). OFTP remaining opportunities at work was also significantly, positively associated with education ($r = .19$), subjective physical health ($r = .37$), and extraversion ($r = .24$), whereas remaining time at work was only significantly, positively associated with extraversion ($r = .15$) and subjective physical health ($r = .34$). That is, individuals who reported more occupational time remaining and more occupational opportunities ahead were slightly higher in extraversion and physical health. The Zacher and Frese

(2009) findings showed that OFTP scales were associated with antecedents (e.g., education) and correlates (e.g., physical health) in an analogous manner as the CL-FTP, suggesting there is construct overlap between OFTP and CL-FTP, and that each functions within a similar nomological network.

Zacher and Frese (2009) also found that scores on the remaining opportunities at work scale were also significantly, weakly related to job complexity ($r = .17$), and that job complexity moderated the relationship between age and remaining opportunities at work. Zacher and Frese (2009) suggested that this moderating impact of job complexity between age and OFTP suggests that OFTP is not invariant, but sensitive and malleable (i.e., cognitive structure). This is consistent with the findings that show CL-FTP is dynamic and changing (Gjesme et al., 1981), suggesting OFTP functions parallel to CL-FTP and the item modification did not adjust CL-FTP's underlying theory.

In a second study, Zacher et al. (2010) extended their examination of OFTP by investigating the effects of individual differences in focus on opportunities on work performance using a sample of employees from 41 organizations (mean age = 40.22, range = 19-64). In this study, focus on opportunities was assessed using three items from the Carstensen and Lang (1996) scale (2 of the 3 items overlap the Zacher and Frese (2009) scale). The focus on opportunities scale was created by adapting items to be applicable to the occupational context.

Consistent with Zacher and Frese (2009), Zacher et al. (2010) found that age was significantly, negatively correlated with focus on opportunities ($r = -.50$), and that focus on opportunities at work had significant positive relationship with work performance ($r = .20$). They also found that focus on opportunities at work mediated the relationship between age and work performance ($r = .22$), and between job

complexity and work performance ($r = .18$). Job complexity moderated the focus on opportunity—age relationship, with a weaker negative relationship obtained between age and focus on opportunities at work in high-complexity jobs ($r = -.30$). Focus on opportunities also mediated the indirect negative relationship of age with work performance when job complexity was low ($r = -.52$).

The Zacher et al. (2010) findings suggest that age is associated with OFTP in terms of focus on opportunities, but that this relationship is attenuated among those individuals performing jobs characterized as high in complexity. Thus, these results further support OFTP's dynamic nature.

Zacher and colleagues (2009, 2010) consistently found dimensions (i.e., focus on opportunities and remaining time) of the OFTP measure to be negatively related to chronological age with the relationship ranging from moderate to strong. This relationship is essential to demonstrate that OFTP is driven by the same underlying theory as general FTP. If the OFTP measure lacks a significant relationship with age, then the modification of the general FTP measure may be adjusting more than the domain of reference, which would change the meaning of the findings. Thus, I hypothesized the following:

H5: The Occupational Future Time Perspective Scale (OFTP) will be significantly, and strongly negatively correlated with chronological age (anticipated $\rho = -.65$).

As discussed, Zacher and colleagues (2009, 2010) found focus on opportunities was positively related to job complexity, which suggests that OFTP is sensitive to work characteristics. Thus, other work-related contextual effects may influence an individual's OFTP. For example, an individual in a growing company with ample opportunity to advance may have a higher OFTP than an individual working a part-time job barely making ends meet. The sensitivity of OFTP to work

characteristics would suggest that OFTP is a cognitive structure, not a dispositional trait; which would provide evidence that OFTP could be changed, possibly through interventions or job change.

To evaluate this possibility, I examined differences in OFTP between full-time employed individuals and unemployed individuals. By measuring the differences in OFTP between full-time employed and unemployed individuals I attempted to maximize the differences in work characteristics between groups. For example, a full-time employed individual is working at least 40 hours a week, earning a paycheck, experiencing a workplace environment, interacting with co-workers, clients or a boss, and envisioning some “future” with the organization (i.e., promotion, quitting, etc.). In contrast, an unemployed individual is not working, is not interacting with co-workers, clients or a boss, and does not maintain a “future” with any organization. If work characteristics do exhibit a relationship with OFTP, then full-time employed and unemployed individuals would have different mean OFTP scores. I expected the following mean difference:

H6: Full-time employed and unemployed participants will report significantly different levels of OFTP, such that full-time employed participants will have higher scores.

FTP and OFTP

The rationale for the creation of the OFTP is that individual differences in occupational future time perspective represent a setting-specific facet of the broader future time perspective trait conceptualized by Carstensen and her colleagues. By framing the OFTP measure, Zacher and colleagues sought to maximize the relationships between FTP and work-related measures by reducing the presence of between-subjects variability in item interpretation (Holtz et al, 2005) and reduce

within-subject inconsistency in item interpretation (Lievens et al., 2008).

Conceptually, however, it is a question whether occupational measures reflect a domain-specific measure of future time perspective as a general trait, or whether occupational measures assess individual differences in how one conceives of his/her work future. General measures typically assess future time perspective at a lifespan-level of analysis; that is, in terms of a future lifetime of unknown time duration. At the more specific level of work, however, the future in terms of work is often clearer and demarcated by a chronological age at which people plan to retire or withdraw from the labor force. Ekerdt, Vinick, and Bosse (1989) found that 66% of older men accurately predicted their retirement (i.e., ± 1 year) and jobs such as airplane pilot, federal agent, and firefighter have mandatory retirement. In addition, countries such as Japan, Sweden, and France have mandatory retirement ages.

As Jackson (2009) noted, many cultures maintain widely-held norms about the age at which individuals are expected to withdraw from the labor force. Assessments of occupational future time perspective may obscure broad trait tendencies in thinking about the future at a lifetime level of analysis with individual differences in future time tendencies that are conditioned on a specific chronological age norm or social policy for retirement and work withdrawal. Advances in healthcare in developed countries may further exacerbate the distinction between lifespan level of analysis measures of future time perspective and occupational measures of future time perspective. For example, as a consequence of increasing life expectancy (CDC, 2010), a 50 year-old worker in the U.S. today might perceive the future at a life-level of analysis as spanning 20-30 years, but perceive an occupational future of only 15-20 years due to socio-cultural norms regarding retirement age and national retirement policies.

Occupational measures of future time perspective may also differ from general measures of future time perspective as a function of the individual's occupational history. Professional athletes, for example, whose work competencies (i.e., physical performance) are age-sensitive (March et al., 2011), are likely to perceive a shorter occupational future time perspective than librarians, whose work competencies are less likely to be age-sensitive. Although both professional athletes and librarians may perceive the future at a lifespan unit of analysis similarly, their perceptions of the future in terms of occupational opportunities and constraints may differ greatly. Accordingly, I propose that OFTP is sensitive to the characteristics of work (e.g., work history, retirement age), which in turn makes the relationship between age and OFTP stronger than the relationship between age and general FTP, therefore, demonstrating that general FTP and OFTP scores are anchored by different endpoints. I expected the following difference:

H7: There will be a significant difference between the OFTP Scale and the general FTP Scale's relationships with chronological age, such that the OFTP Scale will have a stronger relationship with chronological age (anticipated $\Delta p = .10$).

These potential differences between occupational and general FTP as a function of sociocultural factors and an individual's occupation suggest that age might modify the relationship between OFTP and general FTP. The occupational and lifetime futures loom long in young adulthood. For example, an incoming American college student may not see limitations in his/her career or his/her life because both still lie ahead of him/her. The student hasn't even experienced "work life," and still living out the first quarter of his/her estimated lifespan (CDC, 2010). But OFTP and general FTP may dissociate during midlife (with work specific future declining faster than lifetime future). For example, an individual in his/her mid-forties may only have

15 years of work life left, but 35 years of life left. This gap in years remaining in work-life and general-life creates the dissociation. The dissociation between the OFTP and general FTP measures would suggest that the OFTP measure does anchor individuals' answers in the work domain and that the future invoked by the OFTP measure is concentrated within the "work future." Thus, providing support that OFTP and general FTP invoke different endpoints and are differentially susceptible to age, work history, and work characteristics. Such findings would further support the notion that OFTP successfully measures the work-domain and is not obscured by broad trait tendencies of general FTP. I hypothesized the following relationships:

H8: The OFTP and CL-FTP Scales will be significantly, and strongly positively correlated (anticipated $\rho = .85$).

H9: Chronological age will moderate the relationship between the OFTP and the CL-FTP Scales, such that the relationship is stronger for younger adults.

As stated, the OFTP measure is a modification of the cross-domain CL-FTP Scale that provides the individual with an occupational frame of reference (Zacher & Frese, 2009). Although Zacher and colleagues assessed the OFTP—work criteria relations, the relationships between the general and occupational measure and their comparative relations with work criteria are still unknown. Investigation of these relationships is needed to further evaluate the conceptual network and to demonstrate that OFTP is indeed a domain-specific measure of FTP. Frame of reference research shows domain-specific personality measures that ask participants about their behavior at work are more strongly associated with work-related criteria than general personality measures ($f^2 = .09$ -.13 Bing et al., 2004; $f^2 = .15$ Pace & Brannick, 2010). Domain-specific personality measures have superior validity because they reduce the presence of between-subjects variability in item interpretation (Holtz et al, 2005) and

domain-specific personality measures are less likely to produce within-subject inconsistency in item interpretation (Lievens et al., 2008).

Additionally, maximizing domain-specificity can be expected to yield an increase in variance accounted for by OFTP beyond that of general FTP. A measure is most effective when the broadness or narrowness of the measure is equivalent to the criterion it is measuring. Morrongiello, Lasenby-Lessard, and Corbett (2009) found general sensation seeking scores did not predict risk taking across domains (e.g., gambling). When applying this idea to OFTP and general FTP, work attitude is a more specific criterion than general attitude, and OFTP is more specific to work attitude than general FTP.

If the OFTP measure adds incremental validity beyond the general FTP measure it suggests that the OFTP measure is better suited to measure the work domain. However, it would not be conclusive because if the OFTP measure has a higher internal consistency (i.e., Cronbach's alpha) than the general FTP measure, the increase in reliability decreases the error in measurement, which also may contribute to OFTP accounting for additional variance in work-related attitudes. The incremental validity would provide further support for frame of reference testing, whereas, a lack of incremental validity, would suggest general FTP is just as good a measure of work attitudes as OFTP, therefore, making framing general FTP unnecessary. This would suggest that OFTP exhibits broad trait tendencies similar to general FTP. I expected the following relationships:

H10: The OFTP Scale will add significant incremental validity over the CL-FTP Scale in predicting JDI General Scale scores (anticipated $\Delta R^2 = .05$).

H11: The OFTP Scale will add significant incremental validity over the CL-FTP Scale in predicting Work Ability Index scores (anticipated $\Delta R^2 = .03$).

H12: The OFTP Scale will add significant incremental validity over the CL-FTP Scale in predicting Work Locus of Control Scale scores (anticipated $\Delta R^2 = .05$).

H13: The OFTP Scale will add significant incremental validity over the CL-FTP Scale in predicting Work Centrality Scale scores (anticipated $\Delta R^2 = .03$).

As mentioned above, domain-specificity suggests a measure is most effective when the broadness or narrowness of the measure is equivalent to the criterion it is measuring. Therefore, much like how general FTP exhibits significant relationships with certain general criteria, OFTP should be significantly associated with certain work-related criteria. Matching the domain of OFTP and work criteria should lead to similar relationships displayed by general FTP and general criteria. As discussed in the first section, general FTP is significantly positively related to life satisfaction ($r = .32$; Allemand et al., 2012) and internal locus of control ($r = .40$; Allen, Hilgeman, & Allen, 2011). In addition, general FTP is significantly, positively related to education level (e.g., high school, bachelor's degree, etc.) ($r = .20$; Zacher & de Lange, 2011), a proxy for school achievement or academic ability. Lastly, the relationship between life or family centrality with general FTP has not been measured, but general FTP has a significantly, negative relationship with work-family conflict ($r = -.21$; Treadway et al. 2011). This result suggests an individual high in general FTP experiences less work-family conflict or is more family centric.

By demonstrating the OFTP measure exhibits similar relationships with work-related criteria as the general FTP measure's relationships with general criteria, the results would suggest framing general FTP does not modify general FTP's nomological network, but rather translates the network into the work domain. Again, suggesting framing modifies the anchoring of individuals' answers and domain

specificity, but does not modify general FTP's underlying theory or item interpretation. I expected the following relationships:

H14: The OFTP Scale will be significantly, and weakly positively correlated with the JDI General Scale (anticipated $\rho = .35$).

H15: The OFTP Scale will be significantly, and weakly positively correlated with the Work Ability Index (anticipated $\rho = .35$).

H16: The OFTP Scale will be significantly, and weakly positively correlated with the Work Locus of Control Scale (anticipated $\rho = .35$).

H17: The OFTP Scale will be significantly, and weakly positively correlated with the Work Centrality Scale (anticipated $\rho = .30$).

Summary

The present study explores the relationships among cross-domain and occupation-specific measures of future time perspective (FTP) to address a series of questions. First, I examine the relationships between three cross-domain level measures of future time perspective (i.e., ZBF, CFC, CL-FTP) that derive from different theories, and their potential differential relationships to conscientiousness and chronological age. Second, I explore the relationship of the current dominant occupation-specific measure of future time perspective (i.e., OFTP) to cross-domain FTP measures, chronological age, and other work-related attitudes. Building on prior work by Zacher and his colleagues (2009, 2010) that indicate the impact of job characteristics on OFTP, I also examine these relations among employed and unemployed workers and evaluate whether OFTP exhibits incremental validity for work attitudes.

The OFTP measure is expected to be strongly related to the general FTP measure, but exhibit a stronger relationship with chronological age due to the

difference in domain end point (i.e., retirement vs. lifespan). In addition, an individual's OFTP should be sensitive to his/her work context or characteristics; therefore, showing OFTP is a domain-specific measure of FTP and is a malleable cognitive structure. Even though the OFTP measure is a modified general FTP measure, the OFTP measure should still exhibit a similar nomological network as the general FTP measure. This would demonstrate OFTP is functioning in an analogous manner to general FTP and still possesses FTP's underlying theory. Lastly, the curiosity in OFTP was sparked by OFTP's significant relationships with work criteria; therefore, it is important to demonstrate the OFTP measure's incremental validity beyond the general FTP measure when measuring work attitudes. Significant incremental validity will provide support for frame of referencing testing and OFTP's increased usefulness beyond general FTP when studying the workplace.

Chapter 2

METHOD

Participants

The study incorporated two distinct samples: (1) Full-time employed individuals and (2) Unemployed individuals who are looking-for-work. To maintain congruency with earlier OFTP research, (i.e., Zacher and colleagues 2009, 2010) all hypotheses were assessed with the full-time sample, with the unemployed sample only used to evaluate Hypothesis 6, pertaining to the impact of work characteristics. A total of 313 full-time currently employed, 66 part-time currently employed, 47 self-employed, and 103 unemployed, but looking-for-work participants completed the online survey. The part-time and self-employed samples were collected for exploratory purposes, therefore, only the full-time currently employed sample (N=313) and the unemployed sample (N=103) were used in the analyses. Because no total sample analyses were performed, total sample demographics are not reported.

Four dummy coded variables incorporating two reverse-scored items were used to identify potential acquiescent responders. For example, individuals scoring > 60 on a 12-item scale using standard scoring for two reverse-scored items were evaluated on a more in-depth case-case basis for potential exclusion. This way, individuals would have had to indicate at least a 5 on the 6-point Likert-type scale across all items in order to be detected. From this dummy code procedure, thirty participants were further examined for similar acquiescent responding across all items in the survey. From this further case examination, 13 of these participants (6 Full-time, 4 Part-time, and 3 Unemployed) were identified as acquiescent responders and so were excluded from subsequent analyses. After standardizing both predictor and criterion scores, an additional 14 participants were identified as statistical outliers (+/-

3.0 SD from the \bar{x}). These 14 participants were further examined for legitimacy of their extreme scores by checking against entry error and motivated misreporting (Osborne and Overbay, 2004). Eleven of the 14 outliers were identified as legitimate, based on their marginal outlier qualification and relative standing on other measures ($< 1SD$ from the \bar{x}). Five participants (3 Full-Time, 2 Unemployed), however, were identified as motivated misreporters and were excluded from further analyses. Therefore, the total number of participants for full-time, employed analyses ranged from 299 - 304 ($N = 299 - 304$) and 98 ($N = 98$) for unemployed analyses. A second power analysis at the $\alpha \leq .05$ level, downward adjusted for the excluded participants, still indicated sufficient power ($r = .25$, $1-\beta = .99$; $f^2 = .05$, $1-\beta = .86$) for detecting the smallest hypothesized effect size.

Following data cleaning, the final full-time employed sample was comprised of 142 males (46.7%) and 162 females (53.3%). Mean age of the full-time sample was 35.3 years old ($SD = 9.14$ years). Ethnicity, education, and marital status of the full-time employed sample are displayed in Table 1.

Table 1.

<i>Demographics Full-time Sample</i>		
Variable	Frequency	Percentage
<i>Ethnicity</i>		
<i>Caucasian</i>	261	85.9
<i>Asian</i>	18	5.9
<i>African American</i>	12	3.9
<i>Hispanic</i>	13	4.3
<i>Education Level</i>		
<i>High School</i>	34	11.2
<i>1 Year of College</i>	14	4.6
<i>2 Years of College</i>	41	13.5
<i>3 Years of College</i>	9	3.0
<i>4 Years of College</i>	22	7.2
<i>College Graduate</i>	101	33.2
<i>Master's Degree</i>	69	22.7
Table 2 Continued		
<i>Doctorate Degree</i>	14	4.6

Table 1 Continued.

Marital Status		
<i>Married or Living with Partner</i>	208	68.4
<i>Single and Divorced</i>	23	7.5
<i>Single, Never Married</i>	73	24.0

Following data cleaning, the final unemployed sample was comprised of 28 males (29.0%) and 70 females (71.0%). Mean age of the unemployed sample was 35.7 years old (SD = 9.29 years). Ethnicity, education, and marital status of the unemployed sample are displayed in Table 2.

Table 2.

<i>Demographics Unemployed Sample</i>		
Variable	Frequency	Percentage
Ethnicity		
<i>Caucasian</i>	74	75.5
<i>Asian</i>	6	6.1
<i>African American</i>	12	12.2
<i>Hispanic</i>	6	6.1
Education Level		
<i>High School</i>	9	9.2
<i>1 Year of College</i>	12	12.2
<i>2 Years of College</i>	23	23.5
<i>3 Years of College</i>	3	3.1
<i>4 Years of College</i>	6	6.1
<i>College Graduate</i>	30	30.6
<i>Master's Degree</i>	13	13.3
<i>Doctorate Degree</i>	2	2.0
Marital Status		
<i>Married or Living with Partner</i>	60	61.2
<i>Single and Divorced</i>	9	9.2
<i>Single, Never Married</i>	29	29.6

Examination of demographic differences between the final full-time employed sample and unemployed sample showed no significant difference in age between the two samples. However, the full-time employed sample had a significantly greater proportion of males and Caucasians than the unemployed sample ($z(168) = 3.16, p =$

.002; $z(333) = 2.39$, $p = .02$, respectively) and reported a higher level of education than the unemployed sample ($t(400) = 2.64$, $p = .01$). The unemployed sample also had a significantly greater proportion of African Americans than the full-time unemployed sample ($z(22) = 3.02$, $p = .003$). There were no significant differences in proportion of Asians, Hispanics, married or living with partner, single and divorced, and single, never married between the full-time employed and unemployed samples.

Procedure

Data were collected through a survey administered over the Internet. Participants were recruited through the survey distributor Mechanical Turk. Interested participants signed up for the study via the Mechanical Turk website, where study overviews and associated compensation were posted, along with a link to the survey. All interested participants first completed a brief qualification test. The qualification test contained items asking for participants' age, amount of work experience, and current working status. Upon completion of the qualification test (i.e., \$0.01), qualified participants were emailed a thank you. Participants who met the criteria for inclusion in the study were provided instructions for participation in the online survey.

To minimize potential common method bias, the general FTP measure was administered at the beginning of the main survey and the OFTP measure was administered presented at the end of the survey. There was a 2 hour time limit to complete the survey. At the end of the survey, participants were thanked and provided a completion code (i.e., \$0.25). If participants failed to complete the survey within a week after receiving the instructional email, a follow up reminder was administered. A full description of the measures included in the survey is provided in the Appendices.

Measures

Background Information. Participants were asked to provide age, gender, highest education completed, marital status, and ethnicity information.

Work Information. Participants were asked to provide current work status, job title, intended retirement age, absenteeism, tardiness, and current job tenure.

General Future Time Perspective. Participants completed three self-report future time perspective scales. The *Carstensen and Lang Future Time Perspective Scale* (Carstensen & Lang, 1996) is a 10-item measure that contains two subscales (i.e., Focus on Opportunities, Focus on Limitations). Participants were instructed to rate the degree to which they agree with each item, using a 7-point scale, ranging from (1) Very Untrue to (7) Very True. Focus on limitations was measured with the first three items (reverse coded). An example item was “I have the sense that time is running out” (Lang & Carstensen, 1996). Focus on opportunities was assessed using the other seven items, including for example “many opportunities await me in the future.” The measure achieved an internal consistency reliability of $\alpha = .88$. The full measure is provided in Appendix E.

Participants also completed the 13-item *Zimbardo and Boyd Future Factor Scale* (Zimbardo & Boyd, 1999). Participants were instructed to rate the degree to which they agree with each item using a 5-point scale, ranging from (1) Very Untrue to (5) Very True. A sample item included “I am able to resist temptations when I know that there is work to be done.” Three items were reverse coded. The measure achieved an internal consistency reliability of $\alpha = .81$. The full measure is provided in Appendix C.

The third scale administered was the 12-item *Consideration of Future Consequences Scale* (Strathman et al., 1994). Participants were instructed to indicate

their agreement with each item using a 5-point Likert-type Scale, ranging from (1) Very Untrue to (5) Very True. A sample item included “I only act to satisfy immediate concerns, figuring the future will take care of itself.” Five items were reverse coded. The measure achieved an internal consistency reliability of $\alpha = .85$. The full measure is provided in Appendix B.

Occupational Future Time Perspective. Participants completed the same *Carstensen & Lang Future Time Perspective Scale* (Lang & Carstensen, 1996) used to measure general future time perspective. However, the scale's items were adapted by adding the word “occupational” to each item. A sample item included “many opportunities await me in my occupational future.” The measure achieved an internal consistency reliability of $\alpha = .93$. The full measure is provided in Appendix J.

Work Locus of Control. Work locus of control was assessed using the 16-item *Work Locus of Control Scale* (Spector, 1988). Participants were asked to indicate their agreement to a series of items pertaining to beliefs about jobs in general, using a 6-point Likert-type Scale, ranging from (1) Strongly Disagree to (6) Strongly Agree. A sample item included “a job is what you make of it.” Eight items are reverse coded. The measure achieved an internal consistency reliability of $\alpha = .89$. The full measure is provided in Appendix L.

Job Satisfaction. The 18-item *Job in General subtest of the Job Descriptive Index* (JDI; Ironson, Smith, Brannick, Gibson, & Paul, 1989) was used to assess current job satisfaction. For this scale, participants were instructed to indicate how well each item describes their current job by selecting yes or no for each item. A sample item included “how well does each of the following words or phrases describe... Enjoyable.” The measure achieved an internal consistency reliability of $\alpha = .93$. The full measure is provided in Appendix F.

Goal Orientation. Goal orientation was assessed using the 11-item *Work Domain Goal Orientation Scale* (Vandewalle, 1997). The measure consists of two factors, learning orientation and performance orientation, that Vandewalle (1997) found correlated $r = .60$. Participants were asked to indicate their agreement with a series of items pertaining to learning and performance goal orientation, using a 6-point Likert-type Scale, ranging from (1) Strongly Disagree to (6) Strongly Agree. A sample item included “I often look for opportunities to develop new skills and knowledge.” The Learning Orientation subscale achieved an internal consistency reliability of $\alpha = .87$ and the Performance Orientation subscale achieved an internal consistency reliability of $\alpha = .75$. The full measure is provided in Appendix N.

Organizational Citizenship Behavior. Organizational citizenship behavior was assessed using the 20-item *Organizational Citizenship Behavior Checklist* (Fox, Spector, Goh, Bruursema, & Kessler 2011). Participants were asked to indicate their agreement to a series of items pertaining to organizational citizenship behavior, using a 5-point Likert-type Scale, ranging from (1) Never to (5) Everyday. A sample item included “picked up meal for others at work.” The measure achieved an internal consistency reliability of $\alpha = .94$. The full measure is provided in Appendix G.

Achievement Striving. Individual differences in achievement striving were assessed using the 10-item *IPIP Comparison Scale to the NEO-PI-R Conscientiousness subscale* achievement striving (Goldberg et al., 2006). Participants were asked to indicate their agreement to a series of items pertaining to achievement striving, using a 6-point Likert-type Scale, ranging from (1) Strongly Disagree to (6) Strongly Agree. A sample item included “go straight for the goal.” Three items were reverse coded. The measure achieved an internal consistency reliability of $\alpha = .89$. The full measure is provided in Appendix H.

Planfulness. Individual differences in planfulness were assessed using the 10-item *IPIP Comparison Scale to items in the MPQ Planfulness subscale* (Goldberg et al., 2006). Participants were asked to indicate their agreement to a series of items pertaining to planfulness, using a 6-point Likert-type Scale, ranging from (1) Strongly Disagree to (6) Strongly Agree. A sample item included “pay attention to detail.” Five items were reverse coded. The measure achieved an internal consistency reliability of $\alpha = .85$. The full measure is provided in Appendix I.

Work Ability. Work ability was assessed using the 5-item *Work Ability Index* (Tuomi, 1998). Participants were asked to rate their current ability versus their lifetime best, as well as the degree that health problems have impacted their ability to work. The measure is a mixture of rating scale and multiple choice items. A sample item included “indicate your current work ability compared with your lifetime best.” The measure achieved an internal consistency reliability of $\alpha = .72$. The full measure is provided in Appendix K.

Work Centrality. Work centrality was assessed using the 12-item *Work Centrality Scale* (Paullay et al., 1994). Participants were asked to indicate their agreement to a series of items pertaining to the importance of work in their lives, using a 6-point Likert-type Scale, ranging from (1) Strongly Disagree to (6) Strongly Agree. A sample item included “work should only be a small part of one's life.” Four items were reverse coded. The measure achieved an internal consistency reliability of $\alpha = .87$. The full measure is provided in Appendix M.

Analysis Overview

Prior to analysis, the skewness and kurtosis of all study variables were examined to assess the normality of each variable's distribution. No skewness absolute value was greater than 1.39 and no kurtosis absolute value was greater than

1.88. Both of these values fall within Kendall and Stewart's (1958) recommended acceptable range (Skewness < 2 and Kurtosis < 5). Inspection of frequency plots did not show any variables that visibly deviated from normality. Therefore, all variables were analyzed in their original metric.

Unless, otherwise indicated, all analyses were performed with the full-time, employed sample. To assess the relationships among the three FTP constructs, Pearson-product moment correlations were computed to assess the bivariate linear association (i.e., Hypotheses 1a-c). Pearson-product correlations were also performed to assess Hypotheses 2a-c and 3a-c, which measure each type of FTP's relationship with achievement striving and planfulness. The relationship between general FTP and age (i.e., Hypothesis 4), OFTP and age (i.e., Hypothesis 5), and OFTP and general FTP (i.e., Hypothesis 8) were all measured with Pearson-product correlations. Lastly, for Hypotheses 14-17, which assessed the relationships between OFTP and job satisfaction, work locus of control, work ability, and work centrality, Pearson-product correlations were used. Fischer's $R - Z$ transformations were used to assess significant differences between observed and hypothesized correlations if hypotheses were not fully supported. For the between groups test, the study sample size was used for both the observed and hypothesized n 's.

To assess Hypothesis 6, the significance in the mean difference in OFTP scores between employed and unemployed individuals, the present study performed an Independent Sample t -Test. The t -score is calculated by dividing the difference between two groups by the standard error of the differences between the two groups. Mean difference in general FTP scores between employed and unemployed individuals was also assessed by performing an Independent Sample t -Test.

To assess Hypothesis 7, the significance of the correlational differences for the relationships between the OFTP measure and chronological age and the general FTP measure and chronological age, the present study calculated a William's T_2 statistic. The t -score is calculated by incorporating the correlation between the OFTP measure and chronological age, the general FTP measure and chronological age, and the OFTP measure and the general FTP measure, as well as the sample size.

Moderated regression analysis was performed to assess Hypothesis 9, which examined chronological age's moderating effect on the relationship between OFTP and general FTP. All predictor variables were mean-centered prior to entry (Cohen, Cohen, West, & Aiken, 2003). In the first step gender, education level, and work experience were entered as control variables. In the second step age and OFTP were entered. In the third step, the two-way interaction age x OFTP was entered.

Hierarchical regression analyses were performed to assess OFTP's incremental validity over general FTP in predicting four work-related attitudes (i.e., Hypotheses 10-13). Separate hierarchical regression analyses were conducted for each dependent variable. Entry variables into the analyses will be determined a priori with Step 1 containing demographic information (i.e. age, gender, education level, work experience). For Step 2, general FTP was entered, followed by OFTP in Step 3.

CHAPTER 3

RESULTS

Descriptive statistics of all measures used in the survey are displayed in Table 3. Internal consistency estimates for the study measures were acceptably high for the narrow constructs measured (all α 's $\geq .72$). Internal reliability estimates are displayed along the main diagonal of the correlation matrix for the measures included in the study (Table 4).

Table 3.

Descriptive Statistics of Study Variables (Full-time Sample)

Variable	# Items	M	S.D.	Range	A
Zimbardo & Boyd Future Factor	13	49.24	5.87	(28 – 65)	.81
Consideration for Future Consequences	12	43.12	6.52	(20 – 58)	.85
Carstensen & Lang Future Time Perspective	10	45.55	9.32	(18 – 70)	.88
Occupational Future Time Perspective	10	45.65	10.92	(14 – 70)	.93
Achievement Striving	10	49.21	7.48	(18 – 60)	.89
Planfulness	10	44.89	7.08	(22 – 60)	.85
Learning Goal Orientation	6	27.98	5.09	(8 – 36)	.87
Performance Goal Orientation	5	20.78	4.31	(5 – 30)	.75
Job Satisfaction	18	39.21	14.62	(0 – 54)	.93
Work Ability	5	31.57	3.37	(17 – 35)	.72
Work Centrality	12	34.46	9.09	(12 – 59)	.87
Work Locus of Control	16	68.00	10.95	(36 – 92)	.89
Organizational Citizenship Behavior	20	57.09	14.22	(6 – 98)	.94

Note. N ranges from 299 – 304.

Table 4.

Inter-Correlation Matrix between Controls, Predictors, and Criteria

Variable	Age	Gender	Edu	Achieve	Plan	ZBF	CFC	CL-FTP	OFTP
Age	-								
Gender	.003	-							
Edu	.04	.15*	-						
Achieve	.11	.08	.01	.89					
Plan	.07	.11	.09	.55**	.85				
ZBF	.02	.13*	.11	.62**	.67**	.81			

Table 4 Continued.

CFC	-.03	.04	.08	.53**	.55**	.61**	.85	
CL-FTP	-.27**	-.03	-.06	.27**	.07	.10	.18*	.88
OFTP	-.40**	.02	.02	.32**	.09	.14*	.24**	.93

Note. $N = 299-304$. Gender coded: Male = 1, Female = 2. CFC = Consideration of Future Consequences. CL-FTP = Lang and Carstensen's Future Time Perspective. ZBF = Zimbardo & Boyd's Future. OFTP = Occupational Future Time Perspective. Edu = Education Level. Achieve = Achieve Striving. Plan = Planfulness * $p < .05$, ** $p < .01$.

Interrelationship of FTP's

Table 4 displays the intercorrelation matrix including the three FTP measures (i.e., ZBF; CFC; CL-FTP). As predicted by Hypothesis 1a, the Zimbardo and Boyd Future Factor scale (ZBF) exhibited a strong, positive relationship with the Consideration of Future Consequences scale (CFC) ($r = .61$). However, after correcting for attenuation based on unreliability of the ZBF and CFC measures a true-score correlation of $\rho = .86$ was estimated, which is significantly different than the predicted relationship ($z = 7.36, p = .001$). Therefore, Hypothesis 1a was partially supported. The Carstensen and Lang Future Time Perspective scale (CL-FTP) did not significantly correlate with the ZBF measure ($r = .10$; $1 - \beta = .54$), therefore not providing support for Hypothesis 1b. However, CL-FTP did significantly, positively relate to CFC ($r = .18$) with an estimated true-score of $\rho = .21$. Although the relationship was weaker than anticipated, a Fischer's R - Z transformation showed that the anticipated relationship was not significantly different than the observed ($z = 0.90, p = .37$), thus providing full support for Hypothesis 1c.

FTP, Planfulness, and Achievement Striving

Table 4 displays the intercorrelation matrix for three FTP measures and their relationships with planfulness and achievement striving. Hypotheses 2a & 3a stated that the ZBF measure would be positively related to the IPIP achievement striving and planfulness measures. As shown in Table 2, the ZBF measure was significantly, positively related to the IPIP achievement striving ($r = .62$) and planfulness ($r = .67$)

measures. After correcting for attenuation based on unreliability of the ZBF, achievement striving, and planfulness measures the true-score correlations were estimated as $\rho = .73$ and $\rho = .81$, respectively. A Fischer's R - Z transformation showed that the anticipated relationships were significantly different than the observed ($z = 2.89, p = .002$; $z = 5.32, p < .001$), thus providing only partial support for Hypothesis 2a & 3a.

Hypotheses 2b & 3b stated that the CFC measure would be positively related to the IPIP achievement striving and planfulness measures. These hypotheses were fully supported. The CFC measure was significantly, positively related to the IPIP achievement striving ($r = .53$) and planfulness ($r = .54$) measures. After correction for attenuation based on unreliability of the CFC, achievement striving, and planfulness measures the true-score correlations were estimated as $\rho = .61$ and $\rho = .64$, respectively.

Hypotheses 2c & 3c stated that the CL-FTP measure would be positively related to the IPIP achievement striving and planfulness measures. Hypothesis 2c was fully supported, but Hypothesis 3c was not supported. The CL-FTP measure was significantly, positively related to the IPIP achievement striving measure ($r = .27$) with an estimated true-score correlation of $\rho = .31$, but not significantly related to the IPIP planfulness measure ($r = .07$; $1 - \beta = .33$) with an estimated true-score correlation of $\rho = .08$. A Fischer's R - Z transformation found the anticipated relationship between the CL-FTP and planfulness measures was significantly different than the observed relationship between the planfulness and CL-FTP measures ($z = 2.25, p = .02$), thus providing no additional support for Hypothesis 3c.

FTP and Chronological Age

Table 4 displays the intercorrelation matrix for general FTP, OFTP and age. Hypothesis 4 stated that the general FTP measure (i.e., Carstensen & Lang Future Time Perspective) would be negatively related to chronological age. This hypothesis was partially supported because the general FTP measure was significantly, negatively related to age ($r = -.27$) with an estimated true-score correlation of $\rho = -.29$, but the relationship was weaker than anticipated. The anticipated relationship was significantly different than the observed relationship between chronological age and the CL-FTP measure ($z = 3.34, p < .001$), thus not providing any additional support.

Hypothesis 5 stated that the OFTP measure would be negatively related to chronological age. This hypothesis was partially supported because the OFTP measure was significantly, negatively related to age ($r = -.40$) with an estimated true-score correlation of $\rho = -.42$, but the relationship was weaker than anticipated. The anticipated relationship was significantly different than the observed relationship between chronological age and the OFTP measure ($z = 3.31, p < .001$), thus not providing any additional support.

Employment Status and Work Characteristics

The majority of the unemployed sample was female (71%) and thus is not a representative sample of the unemployed population (Bureau of Labor Statistics, 2011). However, no significant differences in mean scores of general FTP and OFTP were found based on gender. General FTP and OFTP mean scores between females and males for the full-time employed sample showed no significant differences, $t(302) = 0.55, p = .58$ and $t(298) = 0.29, p = .774$, respectively. General FTP and OFTP mean scores between females and males for the unemployed sample showed no significant differences, $t(96) = 0.005, p = .99$ and $t(96) = 0.021, p = .98$, respectively. In addition, the correlation between gender and the general FTP measure was $r = -$

.001 and the correlation between gender and the OFTP measure was $r = -.002$ in the unemployed sample. Similar correlations were found for the full-time sample, $r = -.03$ for general FTP and $r = .02$ for OFTP. Therefore, due to the negligible relationships between gender, the general FTP measure, and the OFTP measure in both the full-time and unemployed samples, the following results should not be devalued.

Hypothesis 6 stated that full-time employed participants would have higher OFTP scores than unemployed participants. This hypothesis was fully supported. As shown in Table 5, full-time employed participants exhibited a mean OFTP score of 45.65, whereas unemployed participants exhibited a mean OFTP score of 42.96. An Independent Samples *t*-Test found the mean difference was statistically significant ($t(396) = 2.02, p = .044$), such that full-time employees had higher OFTP scores than unemployed participants. The difference exhibited a small effect size of $d = .20$.

Further analysis exploring the mean difference in general FTP between full-time employed participants and unemployed participants also revealed a significant difference. As shown in Table 5, full-time employed participants exhibited a mean general FTP score of 45.55, whereas unemployed participants exhibited a mean general FTP score of 42.35. An Independent Samples *t*-Test found the mean difference was statistically significant ($t(400) = 2.47, p = .02$), such that full-time employees, had higher general FTP scores than unemployed participants. The difference exhibited a small effect size of $d = .28$.

Table 5.

<i>Independent Sample T-Tests between OFTP and GFTP</i>					
Variable	Sample	Mean	Mean Difference	<i>t</i>	Significance
OFTP	Full-time	45.65	2.69	2.02	.04*
	Unemployed	42.96			
GFTP	Full-time	45.55	3.20	2.47	.02*
	Unemployed	42.35			

Table 5 Continued.

Note. $DF = 396-400$. GFTP = General Future Time Perspective. OFTP = Occupational Future Time Perspective. * $p \leq .05$.

Finally, employment status was dummy coded and hierarchical regression analysis measured if employment status added any incremental validity in predicting OFTP and general FTP scores. Displayed in Table 6 and Table 7, results showed employment status added significant ΔR^2 ($\Delta R^2 = .012$, $p = .024$) in predicting general FTP scores, but did not add incremental validity in predicting OFTP scores ($\Delta R^2 = .007$, $p = .089$).

Table 6.

Regression Analyses: Dependent Variable OFTP

Predictor	β	R^2	ΔR^2	$F\Delta$	Sign.
Step 1		.127	.127	11.42	< .001**
Age	-.412				
Work Experience	.070				
Gender	.005				
Education	.059				
Step 2		.134	.007	2.91	.09
Employment Status	.084				

Note. $DF_{(numerator, denominator)} = 1 - 5, 391 - 392$. Regression coefficients are standardized. OFTP = Occupational Future Time Perspective. ** $p \leq .01$.

Table 7.

Regression Analyses: Dependent Variable GFTP

Predictor	β	R^2	ΔR^2	$F\Delta$	Sign.
Step 1		.062	.062	5.21	< .001**
Age	-.369				
Work Experience	.162				
Gender	-.021				
Education	.019				
Step 2		.074	.012	5.16	.02*
Employment Status	.116				

Note. $DF_{(numerator, denominator)} = 1 - 5, 395 - 396$. Regression coefficients are standardized. GFTP = General Future Time Perspective. * $p \leq .05$, ** $p \leq .01$.

To further probe the differences in general FTP and OFTP mean scores between full-time employed and unemployed individuals, mean differences in all study variables were examined to discover underlying differences that may influence the FTP mean differences. Independent Sample *t*-Tests were performed and four significant mean differences were found. Displayed in Table 8, full-time employed individuals had higher education ($t(400) = 2.64, p = .009$), salary ($t(400) = 10.14, p < .001$), work internal locus of control ($t(399) = 2.58, p = .01$), and work ability ($t(400) = 3.29, p = .001$).

Table 8.

Independent Sample t-Tests between Employed and Unemployed

Variable	Sample	Mean	Mean Difference	<i>t</i>	Significance
Education	Full-time	5.04	0.64	2.64	.009**
	Unemployed	4.40			
Salary	Full-time	2.64	1.31	10.14	< .001**
	Unemployed	1.33			
Work LOC	Full-time	68.00	3.88	2.58	.01**
	Unemployed	64.12			
Work Ability	Full-time	31.57	1.79	3.29	.001**
	Unemployed	29.79			

Note. *DF* = 399-400. GFTP = General Future Time Perspective. OFTP = Occupational Future Time Perspective. Work LOC = Work Locus of Control. ** $p \leq .01$.

Further analyses explored work characteristics outside of employment status. The following one-way ANOVA analyses looked at the between-group differences in OFTP and general FTP scores based on work industry membership and if a participant was of managerial status. Industry membership is a nominal variable, including such industries as federal government, retail trade, and educational services. Industry sample sizes varied greatly and were quite small, so results are merely exploratory. Displayed in Table 9, the results showed that OFTP mean scores did not

differ significantly based on work industry membership ($F = 1.47, p = .09$) or if the participant held a managerial role or not ($F = 1.03, p = .36$). General FTP mean scores did differ significantly based on work industry membership ($F = 1.66, p = .04$), but did not differ significantly if the participant held a managerial role or not ($F = 1.36, p = .26$).

Table 9.

One-way ANOVA Analyses

Factor	Criterion	F-Statistic	Significance
Industry	OFTP	1.47	.09
Membership	GFTP	1.66	.04*
Manager Status	OFTP	1.03	.36
	GFTP	1.36	.26

Note. DF Between Groups = 2-20. DF Within Groups = 283-297. GFTP = General Future Time Perspective. OFTP = Occupational Future Time Perspective. * $p \leq .05$.

In addition, hierarchical regression analysis measured the incremental validity of work events beyond participant demographics and work experience in predicting OFTP and general FTP scores. Participants indicated if any or all of 12 work events had occurred within the past year. Displayed in Table 10, of the 12 events, only “was required to take unpaid days off” provided incremental validity in predicting OFTP scores ($\Delta R^2 = .03, p = .003$). For predicting general FTP scores, the following 3 events provided incremental validity: “was required to take unpaid days off,” ($\Delta R^2 = .03, p = .003$), “took a part-time job in addition to my main job,” ($\Delta R^2 = .01, p = .04$), and “decrease in job security” ($\Delta R^2 = .03, p = .003$). Two additional regression analyses were performed with the inclusion of all 12 work events at once in Step 2. Displayed in Table 10, the 12 work events added significant incremental validity in predicting OFTP scores ($\Delta R^2 = .06, p = .04$) and general FTP scores ($\Delta R^2 = .07, p = .02$).

Table 10.

Hierarchical Regression Analyses of Work Events

Event	FTP	ΔR^2	F-Statistic	Significance
New supervisor	OFTP	.002	0.736	.392
	GFTP	.007	2.378	.124
Took bridge retirement job in the same organization	OFTP	-	-	-
	GFTP	-	-	-
Was promoted or rewarded for my work	OFTP	.008	2.733	.099
	GFTP	.006	1.964	.162
Decrease in hours worked per week	OFTP	.001	.283	.595
	GFTP	.002	.492	.483
Decrease in job security	OFTP	.005	1.666	.198
	GFTP	.027	8.832	.003**
Took a part-time job in addition to my main job	OFTP	.007	2.639	.105
	GFTP	.013	4.248	.040*
Got a new job at a different organization	OFTP	.007	2.306	.130
	GFTP	.000	.041	.839
Increase in hours worked per week	OFTP	.001	.244	.622
	GFTP	.001	.303	.582
Took on more responsibilities at work	OFTP	.005	1.650	.200
	GFTP	.010	3.258	.072
Was required to take unpaid days off	OFTP	.025	8.916	.003**
	GFTP	.026	8.772	.003**
Participated in training/development program	OFTP	.001	.439	.508
	GFTP	.001	.304	.582
Change in work role at the same organization	OFTP	.003	1.118	.291
	GFTP	.001	.224	.636
All 12 Events	OFTP	.061	1.844	.041*
	GFTP	.073	2.066	.019*

Note. $DF_{(numerator, denominator)} = 1, 294 - 298$. OFTP = Occupational Future Time Perspective. GFTP = General Future Time Perspective. * $p \leq .05$, ** $p \leq .01$.

OFTP, FTP, and Chronological Age

Hypothesis 7 stated that the OFTP measure would have a stronger relationship with chronological age than the general FTP measure. This hypothesis was fully supported. Both the OFTP and general FTP measures were significantly, negatively related to age, $\rho = -.42$ and $\rho = -.29$, respectively. The William's T_2 test found a significant difference between the correlations ($t(299) = 3.69, p = .001$), such that the OFTP measure was significantly more correlated with chronological age than the general FTP measure.

Hypothesis 8 stated that the OFTP and general FTP measures would be significantly and strongly positively correlated. This hypothesis was fully supported. The OFTP and general FTP measures displayed a correlation of $r = .78$ (Table 4). After correcting for attenuation based on unreliability of the OFTP and general FTP measures a true score correlation of $\rho = .86$ was estimated between the general FTP and OFTP measures.

Hypothesis 9 stated that chronological age would moderate the relationship between the OFTP and general FTP measures, such that the relationship is stronger for younger adults. As shown in Table 11, this hypothesis was not supported. The interaction of chronological age and the OFTP measure did not add incremental validity in predicting general FTP ($\Delta R^2 = .003$, $p = .114$), indicating age does not moderate the relationship between the OFTP and general FTP measures.

Table 11.

Moderation Regression Analyses: Dependent Variable general FTP

Predictor	β	R^2	ΔR^2	$F\Delta$	Sign.
<i>Step 1</i>		.047	.047	4.83	.003**
Work Experience	.106				
Gender	-.035				
Education	-.51				
<i>Step 2</i>		.618	.572	220.33	< .001**
OFTP	1.029				
Age	.181				
<i>Step 3</i>		.622	.003	2.509	.114
Age x OFTP	-.005				

Note. $DF_{(numerator, denominator)} = 1 - 3, 293 - 296$. Regression coefficients are standardized. OFTP = Occupational Future Time Perspective. ** $p \leq .01$.

In addition, Paired Sample t -Tests were performed to measure the mean differences between general FTP and OFTP mean scores within age groups and the results are displayed in Table 12. Four age groups were created: 23-29 years old ($N =$

101), 30-39 years old (N = 119), 40-49 years old (N = 49), and 50 or greater (N = 35). These groupings were chosen to insure at least 30 participants per group for normal distribution purposes (Rice, 1995) and create similar age ranges for each group. General FTP and OFTP mean scores were significantly different for the youngest age group, such that OFTP was higher than general FTP ($t(98) = -2.06, p = .04$). For the 30-39 year old age group, general FTP and OFTP mean scores were not significantly different, even though OFTP had a higher mean than general FTP ($t(118) = -1.67, p = .10$). For the 40-49 year old age group, general FTP and OFTP mean scores were not significantly different, but the mean OFTP score was 42.50, whereas the mean general FTP score was 44.27 ($t(47) = 1.83, p = .07$). Lastly, general FTP and OFTP mean scores were significantly different for the oldest age group, such that OFTP was lower than general FTP ($t(33) = 3.58, p = .001$).

Table 12.

Paired Sample t-Tests between General FTP and OFTP for Four Age Groups

Age	Variable	Mean	Mean Difference	<i>t</i>	Significance
23-29	GFTP	48.69	-1.19	-2.06	.04*
	OFTP	49.88			
30-39	GFTP	45.22	-1.08	-1.67	.10
	OFTP	46.30			
40-49	GFTP	44.27	1.77	1.83	.07
	OFTP	42.50			
50-60	GFTP	40.03	4.50	3.58	.001**
	OFTP	35.53			

Note. *DF* = 33-118. GFTP = General Future Time Perspective. OFTP = Occupational Future Time Perspective. * $p \leq .05$, ** $p \leq .01$.

Table 13 displays the correlational relationship between the OFTP and general FTP measures for each age group used above in the Paired Sample *t*-Tests. These correlations address the hypothesized differential relationship between the OFTP and

general FTP measures based on chronological age. However, again, as with the moderation analysis, there were no significant effects. Fischer's R-Z transformations were performed to assess correlational differences, but no Z-score reached significance.

Table 13.

<i>Inter-Correlation between OFTP and GFTP per Age Group</i>	
Age	OFTP - GFTP
23-29	.81**
30-39	.70**
40-49	.81**
50-60	.75**

Note. *N* ranges from 35 – 119. OFTP = Occupational Future Time Perspective. GFTP = General Future Time Perspective. ** $p \leq .01$.

OFTP and Job Attitudes

Table 14 displays the hierarchical regression analyses for OFTP. Hypotheses 10-13 stated that OFTP would add significant incremental validity beyond general FTP in predicting four work-related attitudes. Hypothesis 10 was partially supported. OFTP added significant increment validity in predicting job satisfaction beyond general FTP ($\Delta R^2 = .03, f^2 = .032, p = .002$), but the ΔR^2 was smaller than predicted. Hypothesis 11 was partially supported. OFTP added significant increment validity in predicting work ability beyond general FTP ($\Delta R^2 = .02, f^2 = .025, p = .007$), but the ΔR^2 was smaller than predicted. Hypothesis 12 was fully supported. OFTP added significant increment validity in predicting work locus of control beyond general FTP ($\Delta R^2 = .05, f^2 = .065, p < .001$). Hypothesis 13 was fully supported. OFTP added significant increment validity in predicting work centrality beyond general FTP ($\Delta R^2 = .04, f^2 = .041, p < .001$).

Table 14.

Hierarchical Regression Analyses (OFTP Incremental Validity)												
Predictor	Step 1				Step 2				Step 3			
	R ²	ΔR ²	f	Sign.	R ²	ΔR ²	f	Sign.	R ²	ΔR ²	f	Sign.
Job Satisfaction	.012	.012	.72	.61	.104	.092	29.97	.00	.132	.028	9.47	.002**
Work Ability	.008	.008	.454	.81	.032	.024	7.21	.008	.056	.024	7.37	.007**
Work LOC	.039	.039	2.72	.04	.232	.192	73.35	.00	.282	.051	20.58	.001**
Work Centrality	.042	.042	2.60	.03	.046	.004	1.11	.29	.086	.04	12.68	.001**

Note. N ranges from 299-304. OFTP = Occupational Future Time Perspective. GFTP = General Future Time Perspective. Work LOC = Work Locus of Control. ** $p \leq .01$. Step 1 = age, gender, education, work experience. Step 2 = Step 1, GFTP. Step 3 = Step 2, OFTP

Table 15 displays an additional set of hierarchical regression analyses that were performed to assess the incremental validity of general FTP beyond OFTP in predicting the four work-related attitudes. General FTP did not add significant increment validity in predicting job satisfaction or work ability beyond OFTP, $\Delta R^2 = .004$, $p = .23$ and $\Delta R^2 = .00$, $p = .73$, respectively. General FTP did add significant increment validity in predicting work locus of control and work centrality beyond OFTP, $\Delta R^2 = .012$, $p = .03$ and, $\Delta R^2 = .013$, $p = .04$, respectively.

Table 15.

Table 15:

Hierarchical Regression Analyses (GFTP Incremental Validity)

Predictor	Step 1				Step 2				Step 3			
	R^2	ΔR^2	f	Sign.	R^2	ΔR^2	f	Sign.	R^2	ΔR^2	f	Sign.
<i>Job Satisfaction</i>	.011	.011	.856	.49	.126	.115	38.51	.00	.130	.004	1.43	.23
<i>Work Ability</i>	.007	.007	.53	.71	.055	.047	14.51	.00	.055	.00	.12	.73
<i>Work LOC</i>	.038	.038	2.93	.02	.270	.232	93.35	.00	.282	.012	4.94	.03*
<i>Work Centrality</i>	.042	.042	3.26	.01	.073	.030	9.52	.002	.086	.013	4.16	.04*

Note. N ranges from 299-304. OFTP = Occupational Future Time Perspective. GFTP = General Future Time Perspective. Work LOC = Work Locus of Control. * $p \leq .05$. Step 1 = age, gender, education, work experience. Step 2 = Step 1, OFTP. Step 3 = Step 2, GFTP

Table 16 displays the intercorrelation matrix for general FTP, OFTP and job attitudes. Hypotheses 14-17 stated that the OFTP measure would be significantly positively related to four work attitudes. Hypothesis 14 was fully supported. The OFTP measure was significantly, positively related to the JDI General Scale ($r = .31$,

$\rho = .33, p = .001$). Hypothesis 15 was fully supported. The OFTP measure was significantly, positively related to the Work Ability Index ($r = .21, \rho = .26, p = .001$), but the relationship was weaker than predicted. The observed relationship between the Work Ability Index and the OFTP measure was not significantly different from the anticipated relationship ($z = 1.21, p = .24$). Hypothesis 16 was fully supported. OFTP was significantly, positively related to the Work Locus of Control Scale ($r = .43, \rho = .47, p = .001$), but the relationship was stronger than predicted. The observed relationship between the Work Locus of Control Scale and the OFTP measure was not significantly different from the anticipated relationship ($z = 1.77, p = .09$).

Hypothesis 17 was fully supported. The OFTP measure was significantly, positively related to the Work Centrality Scale ($r = .18, \rho = .20, p = .001$), but the relationship was weaker than predicted. The observed relationship between the Work Centrality Scale and the OFTP measure was not significantly different from the anticipated relationship ($z = 1.31, p = .11$).

Table 16.

Correlations between GFTP, OFTP and Job Attitudes

	Job Satisfaction	Work Ability	Work LOC	Work Centrality
OFTP	.31**	.21**	.43**	.18**
GFTP	.28**	.16**	.41**	.07

Note. $DF = 299-304$. GFTP = General Future Time Perspective. OFTP = Occupational Future Time Perspective. Work LOC = Work Locus of Control. ** $p \leq .01$.

CHAPTER 4

DISCUSSION

The findings of this study provided support for the existence of separate conceptualizations of future time perspective. The present study extended prior literature (e.g., Crockett, Weinman, Hankins, & Marteau, 2009; Keough, Zimbardo, & Boyd, 1999), by demonstrating a strong positive relationship between the ZBF and CFC measures. However, unlike those previous studies, the current study found significant results in an adult full-time working sample. The strong relationship was expected based on similar operational definitions and item content, but the stronger than expected relationship suggests substantial overlap between the two constructs.

The CL-FTP measure's relationship with the CFC and ZBF measures had not been measured in previous studies and findings indicated that CL-FTP is weakly related to CFC and possibly unrelated to ZBF. Considering that CL-FTP is based on the Socioemotional Selectivity Theory (Cate & John, 2007), whereas CFC is operationalized as the struggle between present action and future outcomes (Steel, 2007), a weak relationship was expected. In addition, CL-FTP and ZBF did not exhibit a significant relationship. A possible explanation is between measure individual differences in item interpretation. The ZBF and CL-FTP measures are both considered general, meaning judgements should be based from all aspects of life (e.g., family, school, work, friends, etc.). However, several items on both the ZBF and CFC measures specifically activate the work domain. For example, from the ZBF measure "there will always be time to catch up on my work" or from the CFC measure "since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes." In addition, the association between the ZBF and OFTP measures was significant ($r = .14$) and the CFC measure's relationship with the OFTP

measure was stronger than with CL-FTP ($r = .24$). Therefore, individuals may have anchored their judgments with the CL-FTP measure in a general, lifetime-level and anchored some of their judgments to the ZBF and CFC measures more in the work domain. As Bing et al. (2004) and Pace & Brannick (2010) mentioned, measures sharing domain-specificity are more correlated.

In addition to the support for separate conceptualizations of FTP, the findings showed support for the strong relationship between the ZBF and CFC measures with achievement striving and planfulness. These findings support the notion that individuals high in ZBF or CFC are characterized as conscientious, and provide support that the theory underlying ZBF and CFC is exhibited in measurement. However, the relationships, even after correcting for attenuation due to unreliability, were weak enough to suggest ZBF, CFC, and conscientiousness are different constructs.

The ZBF measure exhibited the strongest relationships with the achievement striving and planfulness measures. Considering Zimbardo and Boyd (1999) explicitly stated individuals high on the future factor exhibit conscientious traits these findings were expected. In addition, the item content overlap between the ZBF measure and IPIP achievement striving and planfulness measures is significant. The relationships between the CFC measure and achievement striving and planfulness were strong. The CFC measure focuses more on delaying gratification and the item overlap with achievement striving and planfulness is not as extensive as the ZBF measure. As with previous research (Zimbardo & Boyd, 1999; Strathman et al., 1994), an individual high in CFC tends to be planful and achievement oriented, in addition to other traits.

Again, the present study provided further evidence that CL-FTP defines FTP along dissimilar lines than CFC or ZBF. The CL-FTP measure exhibited a weak

relationship with achievement striving and an insignificant, negligible relationship with planfulness. Differences between the constructs could be attributed to the nature of the constructs. CL-FTP is a cognitive structure, belief that is argued to change with age, and sensitive to context or characteristics (e.g., family dynamics, work changes, etc.; Gjesme, 1979). Achievement striving and planfulness are conceptualized as stable traits, invariant to outside influences. In addition, the item content of the measures exhibits no overlap and the constructs are conceptually defined differently.

Further findings continued to demonstrate the differences between the three FTP constructs. The relationships between the CFC and ZBF measures with chronological age were negligible and insignificant, providing support for the stability of both constructs. The findings suggest there are no differences between CFC and ZBF based on age and conceptually that CFC and ZBF are not defined by the lifespan or perceived time remaining.

However, the CL-FTP measure exhibited a significant, negative relationship with age as predicted. The findings suggest older individuals have lower CL-FTP scores implying there are age group differences in CL-FTP scores. These results supported the conceptualization that CL-FTP is a construct dependent on the amount of time remaining. An older individual not only perceives, but has less time remaining than a younger individual, which causes an older individual to have a lower CL-FTP. But, the relationship was significantly weaker than expected. This could be accounted for by the sample characteristics. The full Carstensen and Lang FTP measure had never been used in an adult working sample before, therefore, there is no previous literature for comparison. The sample was also skewed young with a mean age of 35 years old. The oldest participant was only 60 years old, and research has found steep declines in CL-FTP may not occur until 70 or 80 years of age (Cheng & Yim, 2008;

Fredrickson & Carstensen, 1990). In addition, with the requirement of full-time employment, there could be a restriction of range on CL-FTP due to demographic similarities. The majority of the sample shared similar education level and socioeconomic status, both of which have been argued to be antecedents of FTP (Ward, Guthrie, & Butler, 2009). Also, the majority of the sample was Caucasian, but the between group effect of ethnicity was not significant when predicting CL-FTP.

As expected, findings showed that the CL-FTP or general FTP measure was strongly, significantly related to the OFTP measure. The relationship was as strong as predicted and the obtained estimated true-score correlation of less than one, suggesting that there are differences in OFTP and general FTP. However, the strong relationship also suggests that OFTP operates under the same underlying assumptions of general FTP, such as the perspective is shaped by the perception of time remaining and the opportunities that wait. Therefore, I argue the modification of the general FTP measure to create the OFTP measure did not modify the shared underlying theory.

As expected, in addition to the strong relationship with the general FTP measure, the OFTP measure exhibited a significant, negative relationship with age. The negative relationship provides further support that OFTP has not redefined general FTP, but only changed the domain of measurement. However, much like the CL-FTP measure's relationship with age, the OFTP measure's relationship was significantly weaker than predicted. Again, sample characteristics may have restricted the range in OFTP based on age, education level, and socioeconomic status. If OFTP is vulnerable to work characteristics, a sample consisting of full-time workers may be restricted compared to a sample comprised of part-time, full-time, and unemployed workers.

The OFTP measure's relationship with chronological age in comparison to the general FTP measure's relationship is significantly stronger, suggesting OFTP has a different relationship with age. Based on the findings, I argue that OFTP's endpoint is the age at which individuals are expected to withdraw from the labor force, not the lifespan. The difference between work withdrawal and life expectancy could be due to many factors, including social policy for retirement, advances in healthcare, or work history. Such factors would contribute to a shorter "working life," and a longer life expectancy, thus exacerbating the difference between the two.

It is also possible, however, that differences within each construct, OFTP and general FTP, cause the differences. With respect to OFTP, professional athletes, for example, whose work competencies (i.e., physical performance) are highly age-sensitive (March et al., 2011), are likely to perceive a shorter OFTP than librarians, whose work competencies are less likely to be age-sensitive. With respect to general FTP, an individual in good physical health is likely to perceive a longer general FTP, than an individual with a chronic disease.

To assess whether OFTP is susceptible to work history and other factors listed above, the present study assessed the differences between employed and unemployed individuals. The findings showed employed individuals have significantly higher mean OFTP scores unemployed individuals. These results suggest that OFTP could be influenced by work characteristics, such as not working versus working full-time. However, further analyses showed a different result.

Considering the strong relationship between the general FTP measure and the OFTP measure, the differences in OFTP between employed and unemployed could be due to underlying differences in general FTP. The findings provided evidence to suggest this may be the case, showing a larger difference in mean general FTP score

than mean OFTP score between employed and unemployed individuals. Therefore, the difference in OFTP could be due to a difference in general FTP, not the influence of differing work characteristics. A follow up hierarchical regression analysis further supported this conclusion, by demonstrating the significant incremental validity of employment status in predicted general FTP, but not OFTP. Thus, the findings suggest that employment status adds no additional variance in predicting an individual's OFTP score beyond demographics and length of work experience.

Based on the variables studied, further analyses attempted to determine what is contributing to the mean differences in general FTP and OFTP scores between employed and unemployed individuals. Employed and unemployed individuals did not differ on achievement striving, planfulness, goal orientation, work centrality, job satisfaction, ZBF, or CFC. However, employed and unemployed individuals did exhibit significant differences in work internal locus of control, work ability, salary, and education level, such that employed individuals were higher than unemployed individuals.

Education has been described as an FTP antecedent, in which O'Rand and Ellis (1974) argued a lack of education may lead to fewer opportunities and greater limitations in one's life, in turn, shortening an individual's general FTP. To account for the differences in general FTP and OFTP possibly based on salary (i.e., socioeconomic status proxy), O'Rand and Ellis (1974) argued that lower SES individuals expect less out of their lives than higher SES individuals and low SES individuals are surrounded by other low SES individuals, who perpetuate behavior that does not support a high FTP. Both could explain the differences in FTP between unemployed and full-time employed. However, in this sample, neither education nor salary were significantly related to general FTP or OFTP, suggesting their effects on

the differences in general FTP and OFTP between employed and unemployed, should be minimal.

Lastly, work locus of control and work ability were both significantly related to OFTP and general FTP, suggesting that mean differences in the two measures could contribute to differences in related variables. Unemployed individuals may think getting job is not based on merit, but luck, and career advancement is out of their control, which could lead to lower OFTP scores. Also, perceived work ability was lower among unemployed than employed, which could lead to perceived future limitations and less opportunities based on a lack of ability for unemployed individuals. Considering the similar correlations between these variables and the OFTP and general FTP measures, even though both are work-related, they could help account for the differences in OFTP and general FTP between the employed and unemployed.

Exploratory analyses also measured the incremental validity of work events and the between-group effects of industry membership and managerial status on general FTP and OFTP scores. Industry membership and managerial status did not exhibit significant effects on OFTP scores and only one work event added incremental validity in predicting OFTP scores (i.e., was required to take unpaid days off). Industry membership did have a significant effect on general FTP scores and three work events added incremental validity in predicting general FTP scores. The sample sizes are small and comparing regression analyses is exploratory, but these results suggest work characteristics and work events effect both general FTP and OFTP. Again, the results suggest a strong relationship between the general FTP and OFTP and the possible encroachment of general FTP life level of analysis into the work-domain.

As expected, the findings indicated there is a strong relationship between the OFTP measure and general FTP measure. However, the association between the two constructs was predicted to vary by age, and to dissociate in older adults. The moderation regression was not significant; therefore, not supporting the dissociation between general FTP and OFTP and suggesting that the relationship between the two measures is stable across age groups. Further analyses, measuring the correlation between the OFTP and general FTP measures in four age groups, found similar results. None of the four correlations were significantly different than one another; again, suggesting the relationship between OFTP and general FTP is stable. Thus, I suggest that even after years of compiled work history, job characteristics, working statuses, these characteristics do not have enough influence to change OFTP's relationship with general FTP. Also, work life could be such a large part of individuals' lives, that work largely influences general FTP, as it does for OFTP.

It could also be argued that the stable association between OFTP and general FTP indicates OFTP does not decline at an earlier age than general FTP. Paired Sample *t*-Tests between the OFTP and general FTP measures within the four age groups showed that the mean OFTP score was significantly higher than the mean general FTP score in the youngest age group, whereas the difference was not significant for the two midlife age groups. For the older group, the OFTP score was significantly lower than the general FTP score, suggesting OFTP does decline earlier than general FTP. However, both mean general FTP and OFTP scores declined between each age group, which could diminish the difference in correlations between the OFTP and general FTP measures in each age group.

In addition, the oldest age group exhibited the largest mean difference between OFTP and general FTP scores, suggesting the largest difference between the two

appears in older age, as predicted. This suggests the difference in endpoints of work and life, does have an influence on the relationship between OFTP and general FTP, however, the difference is not large enough to overcome the antecedent and correlate similarities between the two. It must be mentioned, that these are interindividual differences, not intraindividual differences, and the nature of the cross-sectional data does not allow conclusive results in determining if aging actually creates a distance between OFTP and general FTP.

The OFTP measure is a general FTP measure modified to measure an individual's work domain. The OFTP measure was expected to exhibit a similar nomological network within the work-domain as the general FTP measure, which would provide support that the measure was correctly modified and OFTP exhibits validity in measuring work variables. Findings indicated a similar nomological network for OFTP as general FTP. The significant, positive relationships between the OFTP measure and job satisfaction, work ability, work locus of control, and work centrality also indicate an individual higher in OFTP will also exhibit slightly higher job satisfaction, work ability, internal work locus of control, and work centrality. These significant relationships extend the work of Zacher and colleagues (2009, 2010) and provide greater support of OFTP's value in workplace research.

However, the present study also found that the general FTP measure has similar relationships with these four work attitudes as OFTP. There was only a significant difference in correlation on work centrality between the general FTP and OFTP measures, whereas the other differences were negligible. Therefore, these results may imply that OFTP would not add incremental validity beyond general FTP when predicting these workplace variables.

However, the findings showed the OFTP measure did add significant incremental validity beyond general FTP when predicting all four work attitudes suggesting OFTP is better suited than general FTP to measure work attitudes, which was predicted based on prior frame of reference testing. Based on Cohen's (1988) effect size rule of thumb, all the effects are considered small, but do exceed the typical minimal of $f^2 = .02$. The effect sizes for OFTP are smaller than that found by Pace and Brannick (2010) and Bing et al. (2008). Therefore, OFTP does add validity, but the strength is weak. The weaker effect sizes could be due to the strong correlation between OFTP and general FTP found in the current study ($r = .78$) compared to previous relationships between general and framed measures ($r = .72 - .74$; Lievens, De Corte, Schollaert, 2008; Pace & Brannick, 2010).

In addition, hierarchical regression analyses were performed to measure the incremental validity of general FTP. Direct comparisons between the incremental validity of OFTP and general FTP are not conclusive because differences in accounted variance by demographic variables and the differential internal consistencies of the OFTP and general FTP measures can influence additional variance available and error in measurement, respectively. However, these findings showed the general FTP did not add significant validity beyond OFTP when predicting job satisfaction and work ability, but did add significant validity when predicting work locus of control and work centrality. The significant effect sizes were weak, even smaller than the OFTP effect sizes.

These findings suggest that the additional variance accounted for by OFTP beyond general FTP in predicting work attitudes is unique, and the same validity does not hold when measuring general FTP's validity beyond OFTP. In addition, even though the effect sizes are not substantial, OFTP's incremental validity is significant,

which suggests OFTP effectively measures the work domain better than general FTP and provides further support for the use of frame of reference testing.

The similar relationships between OFTP, general FTP, and work attitudes, and the smaller than expected effect sizes suggest extensive overlap between OFTP and general FTP. There are three plausible explanations. First, framing the general FTP measure was not fully effective and participants either didn't follow directions or item interpretation was not consistent. Second, work is a large part of life. If work is a large part of one's life then it would not only be central for OFTP, but also a large component in answering general FTP items. Thus, leading to a strong relationship between the two and similar correlational relationships with work attitudes. Third, OFTP may confound broad trait tendencies in thinking about the future at a lifetime level of analysis with individual differences in future time tendencies that are conditioned on a specific chronological age (e.g., retirement).

Theoretical Implications

The results from this study extend research on FTP. The current study demonstrated differences in three FTP measures through their relationships with each other, achievement striving, planfulness, and age. The results indicate that one operational definition does not exist for FTP, but that FTP is conceptualized in multiple approaches and their differences need to be accounted for when comparing studies or aggregating results across studies (e.g., meta-analysis). The results further suggest that ZBF and CFC are stable individual difference traits based on their lack of relationship with age and strong relationships with traits operationally defined as stable, such as achievement striving and planfulness. CL-FTP may not be a stable trait, but a changing cognitive structure based on the significant relationship with age and mean differences in employed and unemployed individuals. Further investigation

should utilize a within-person design and longitudinally measure differences in CL-FTP to conclusively find if CL-FTP does change overtime.

In addition, the results from this study extend research on OFTP. This was the first study to measure both general FTP and OFTP and assess the constructs with the full Carstensen and Lang FTP Scale (1996). The results show that OFTP and general FTP are strongly related, but the two exhibit significantly different relationships with chronological age, thus suggesting each construct functions with a different endpoint (i.e., retirement vs. lifespan). In addition, prior research had found significant relationships between workplace criteria and OFTP, as did the present study, but did not measure general FTP's relationships as well. The results suggest that correlationally, general FTP exhibits similar relationships with work attitudes, except work centrality, but OFTP does add incremental validity beyond general FTP. Thus, OFTP is the better measure within the work domain and these validity findings suggest OFTP research should continue.

The relationship between general FTP and OFTP was also probed for the first time. The bivariate linear correlation was consistent with frame of reference research and the difference in correlation with age suggests differences in OFTP and general FTP. But general FTP and OFTPs' similar relationships with work attitudes and general FTP's greater susceptibility to work characteristics indicate a difficulty in parsing a part work and life in relation to the future. Individuals' beliefs toward their future limitations and opportunities in life and work might both greatly hinge on their work successes or working status. Therefore, individuals' beliefs toward their occupational future would parallel their lifetime future. Or the opposite might hold true, where the broad tendencies of general FTP infiltrate all aspects of life, including work, and OFTP and general FTP cannot be delineated. This is in contrast to framing

other constructs. Individuals can clearly delineate how they behave at work and outside of work. For example, an individual can pull from experience that he/she is punctual, hard-working, and attentive at work, but sloppy and lazy outside. Therefore, the nature of the construct might affect the effectiveness of defining work versus life.

Practical Implications

The incremental validity of OFTP beyond general FTP in predicting work attitudes, also further supports the use of frame of reference testing. As with previous research, matching domain specificity can increase validity of a measure. For example, when applying for a job, measuring conscientiousness at work is a better predictor of job performance than noncontextual conscientiousness. Measure modification is simple and can help eliminate the within-person variance in the perception of item content and increase measure internal consistency.

Limitations

There are several limitations to the current study that warrant note. First, when examining aging effects, a within-person, longitudinal design is necessary. The present study was constrained to a cross-sectional design that does not permit conclusive aging results, only inferences. At the very least, future research should measure FTP at two time points. Second, OFTP and general FTP were measured with similar items and in the same self-report survey. The measures only differ based on the insertion of the word "occupational" in the OFTP measure and with as little as ten minutes between the completions of the measures, common method bias was a possibility. Third, the majority of measures being self-report format creates a potential for common method bias. Along with the format of the measures, the order of presentation of measures can influence responses (Krosnick & Alwin, 1987). A different presentation of items could generate different participant responses, but the

presentation of measures was held constant across all participants. Also, the survey was administered online with a small monetary compensation. This data collection procedure allows for possible cheating and false answers with no supervision, as well as low participant motivation based on the small compensation. In addition, even without disclosing study objectives to the participants and performing outlier and acquiescence tester analyses, the study was subject to demand characteristics, such as good participant or negative participant.

The survey length was constrained by monetary resources and inclusion of measures was limited. Therefore, only the three most studied FTP scales were included, but future research should compare additional scales, such as older FTP measurement techniques like Future Event Listing. Along with full-time employees, part-time and seasonal workers should be studied to assess the work characteristics associated with those employment types and how those employment contexts shape FTP's nomological network. Lastly, future research should include a wider age range in pursuit of greater age effects. The present study only extended to 60 years old, but FTP research supports a more significant decrease in FTP in older age and with retirement age increasing, getting an older employed sample is possible.

APPENDIX A

Demographic Information

1. Age
2. Highest education level
3. Gender
4. If attending or ever attended college, what was your major?
5. What is your current living status?
6. Which of the following best describes your identity?
7. Does your spouse/partner work outside the home?
8. Health Status: Health status. Indicate the extent to which you agree/disagree with each item.
 - a. I am not limited by my health in performing most physical activities.
 - b. I have a lot of energy.
 - c. I am able to accomplish less due to my physical health.
 - d. I am limited in the kind of work or activities I can do due to my physical health.
 - e. Overall, I would rate my health as excellent.
 - f. Overall, I am very satisfied with my health.
9. In a typical month, about how many hours do you do volunteer work?
10. In a typical week, how many times do you exercise?
11. In a typical week, how often did you feel stressed at work?
12. In a typical week, how many hours do you spend on-line?
13. Approximately, what is your current annual salary?
14. Have you ever been laid off or involuntarily downsized from a job?
15. Approximately, how many years have you worked full-time over your lifetime?

16. Approximately, how many years have you worked part-time over your lifetime?
17. Approximately, how many promotions/raises have you received in your entire working life?
18. Which of the following best describes your current work status?

Appendix B

Work-related Background

1. Life events. Place a check to the left of every significant life event that has happened to you during the past year.
2. Work-related events: Place a check to the left of every significant work event that has happened to you during the past year.
3. How many promotions/raises have you received with your current organization?
4. During the past year, have you had to change your retirement plans or intended retirement date for any reason?
5. All things considered, at what age do you expect to retire?
6. How certain are you about your intended retirement age?
7. Some people choose to work after retirement. Do you plan to work after retirement?
8. At what age do you plan on stopping work altogether? (Completely leave the workforce)
9. What is your job title? (Please be specific.)
10. Are you self-employed?
11. If you are not self-employed, do you hold a managerial or administrative position (for example, director or manager)?
12. How long have you worked at your current organization or in your own firm?
13. Which category below best describes the industry you work in?
14. How many persons in your immediate family or household have lost their jobs during the past year?

15. How many of your friends or family members have retired from their job in the past 5 years?
16. Approximately how many more years do you plan to stay with your current organization?
17. Over the past year, how many days have you been gone from work?
18. If you missed any days of work over the past year, what has been the main reason?
19. Approximately how many days this past year have you been late to work?

APPENDIX C

Zimbardo Time Perspective Inventory Future subscale

1. I believe that a person's day should be planned ahead each morning.
2. If things don't get done on time, I don't worry about it.
3. When I want to achieve something, I set goals and consider specific means for reaching those goals.
4. Meeting tomorrow's deadlines and doing other necessary work comes before tonight's play.
5. It upsets me to be late for appointments.
6. I meet my obligations to friends and authorities on time.
7. I take each day as it is rather than try to plan it out.
8. Before making a decision, I weigh the costs against the benefits.
9. I complete projects on time by making steady progress.
10. I make lists of things to do.
11. I am able to resist temptations when I know that there is work to be done.
12. I keep working at difficult, uninteresting tasks if they will help me get ahead.
13. There will always be time to catch up on my work.

APPENDIX D

Consideration for Future Consequences Scale

1. I consider how things might be in the future, and try to influence those things with my day to day behavior.
2. Often I engage in a particular behavior in order to achieve outcomes that may not result for many years.
3. I only act to satisfy immediate concerns, figuring the future will take care of itself.
4. My behavior is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions.
5. My convenience is a big factor in the decisions I make or the actions I take.
6. I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes.
7. I think it is important to take warnings about negative outcomes seriously even if the negative outcome will not occur for many years.
8. I think it is more important to perform a behavior with important distant consequences than a behavior with less-important immediate consequences.
9. I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.
10. I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.
11. I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.
12. Since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes.

APPENDIX E

Future Time Perspective Scale

1. Many opportunities await me in the future.
2. I expect that I will set many new goals in the future.
3. My future is filled with possibilities.
4. Most of my life lies ahead of me.
5. My future seems infinite to me.
6. I could do anything I want in the future.
7. There is plenty of time left in my life to make new plans.
8. I have the sense that time is running out.
9. There are only limited possibilities in my future.
10. As I get older, I begin to experience time as limited.

APPENDIX F

Job the Descriptive Index: Job in General

1. Pleasant
2. Bad
3. Great
4. Waste of time
5. Good
6. Undesirable
7. Worthwhile
8. Worse than most
9. Acceptable
10. Superior
11. Better than most
12. Disagreeable
13. Makes me content
14. Inadequate
15. Excellent
16. Rotten
17. Enjoyable
18. Poor

APPENDIX G

Organizational Citizenship Behavior Checklist

1. Picked up meal for others at work.
2. Took time to advise, coach, or mentor a co-worker.
3. Helped co-worker learn new skills or shared job knowledge.
4. Helped new employees get oriented to the job.
5. Lent a compassionate ear when someone had a work problem.
6. Lent a compassionate ear when someone had a personal problem.
7. Changed vacation schedule, work days, or shifts to accommodate co-worker's needs.
8. Offered suggestions to improve how work is done.
9. Offered suggestions for improving the work environment.
10. Finished something for co-worker who had to leave early.
11. Helped a less capable co-worker lift a heavy box or other object.
12. Helped a co-worker who had too much to do.
13. Volunteered for extra work assignments.
14. Took phone messages for absent or busy co-worker.
15. Said good things about your employer in front of others.
16. Gave up meal and other breaks to complete work.
17. Volunteered to help a co-worker deal with a difficult customer, vendor, or co-worker.
18. Went out of the way to give co-worker encouragement or express appreciation.
19. Decorated, straightened up, or otherwise beautified common work space.
20. Defended a co-worker who was being "put-down" or spoken ill of by other co-workers or supervisor.

APPENDIX H

The IPIP – Achievement Striving Subscale

1. Go straight for the goal.
2. Demand quality.
3. Am not highly motivated to succeed.
4. Turn plans into action.
5. Plunge into tasks with all my heart.
6. Set high standards for myself and others.
7. Do more than what's expected of me.
8. Do just enough work to get by.
9. Put little time and effort into my work.
10. Work hard.

APPENDIX I

The IPIP – Planfulness Subscale

1. Like to plan ahead.
2. Like to act on a whim.
3. Am exacting in my work.
4. Pay attention to details.
5. Jump into things without thinking.
6. Often make last-minute plans.
7. Make rash decisions.
8. Make plans and stick to them.
9. Make a mess of things.
10. Do things by the book.

APPENDIX J

Occupational Future Time Perspective Scale

1. Many opportunities await me in my occupational future.
2. I expect that I will set many new goals in my occupational future.
3. My occupational future is filled with possibilities.
4. Most of my occupational life lies ahead of me.
5. My occupational future seems infinite to me.
6. I could do anything I want in my occupational future.
7. There is plenty of time left in my occupational life to make new plans.
8. I have the sense that in my occupational future time is running out.
9. There are only limited possibilities in my occupational future.
10. As I get older, I begin to experience time in my occupational future as limited.

APPENDIX K

Work Ability Index

1. Indicate your current work ability compared with your lifetime best. Assume that your work ability at its lifetime best has a value of 10 points.
2. What is your current work ability in relation to the demands of your work?
3. How many medical conditions, chronic illnesses or diseases do you currently have that have been diagnosed by a physician?
4. Which of the following best describes your current level of work impairment due to diseases, illness, or injuries.
5. What is your best guess of your work ability two years from now? How likely do you think -- from the standpoint of your health – that you will be able to do your current job two years from now?
6. In general, how frequently have you recently:
 - a. Felt able to enjoy your regular daily activities?
 - b. Felt active and alert?
 - c. Felt hopeful about the future?

APPENDIX L

Work Locus of Control Scale

1. A job is what you make of it.
2. On most jobs, people can pretty much accomplish whatever they set out to accomplish.
3. If you know what you want out of a job, you can find a job that gives it to you.
4. If employees are unhappy with a decision made by their boss, they should do something about it.
5. Getting the job you want is mostly a matter of luck.
6. Making money is primarily a matter of good fortune.
7. Most people are capable of doing their jobs well if they make the effort.
8. In order to get a really good job, you need to have family members or friends in high places.
9. Promotions are usually a matter of good fortune.
10. When it comes to landing a really good job, who you know is more important than what you know.
11. Promotions are given to employees who perform well on the job.
12. To make a lot of money you have to know the right people.
13. It takes a lot of luck to be an outstanding employee on most jobs.
14. People who perform their jobs well generally get rewarded.
15. Most employees have more influence on their supervisors than they think they do.
16. The main difference between people who make a lot of money and people who make a little money is luck.

APPENDIX M

Work Centrality Scale

1. Work should only be a small part of one's life.
2. In my view, an individual's personal life goals should be work oriented.
3. Life is worth living only when people get absorbed in work.
4. The major satisfaction in my life comes from my work.
5. The most important things that happen to me involve my work.
6. I have other activities more important than my work.
7. Work should be considered central to life.
8. I would probably keep working even if I didn't need the money.
9. To me, my work is only a small part of who I am.
10. Most things in life are more important than work.
11. If [the] unemployment benefit was really high, I would still prefer to work.
12. Overall, I consider work to be very central to my existence.

APPENDIX N

Work Domain Goal Orientation Scale

1. I often read materials related to my work to improve my ability.
2. I'm concerned with showing that I can perform better than my coworkers.
3. I often look for opportunities to develop new skills and knowledge.
4. I enjoy challenging and difficult tasks at work where I'll learn new skill.
5. For me, development of my work ability is important enough to take risks.
6. I try to figure out what it takes to prove my ability to others at work.
7. I prefer to work in situations that require a high level of ability and talent.
8. I would rather prove my ability on a task that I can do well at than to try a new task.
9. I enjoy it when others at work are aware of how well I am doing.
10. I prefer to work on projects where I can prove my ability to others.
11. I am willing to select a challenging work assignment that I can learn a lot from.

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